

~ Public Opinion Survey ~

**Missouri Department of Natural Resources
Solid Waste Management Program**

May 2004



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Key Findings (1)

INTRODUCTION

The objective of this Public Opinion Survey is to obtain a current understanding of how citizens feel, think, and act regarding issues related to solid waste management. The information gathered from the survey will be available to guide policy development to meet the needs of Missouri citizens and will help with the development of a public awareness campaign.

This Public Opinion Survey is based on telephone interviews conducted in March 2004 with 622 citizens (18 years of age or older) throughout the state of Missouri. In order to provide additional insight for policy and public awareness initiatives, results are examined by three key subgroups, where appropriate. These three key subgroups are: 1) neighborhood type (suburban, urban, rural); 2) age groups (<40, 40-59, 60+); and 3) those that recycle and those that do not recycle.

This report is organized around five key areas of inquiry, which are:

- 1) General Perceptions of Missouri Citizens - On Issues of Importance
- 2) Issues Related to Solid Waste and Its Disposal
- 3) Issues Related to Recycling
- 4) Issues Related to Yard Waste
- 5) Perceptions With Regard to Who Has Responsibility For Disposal and Clean Up

In addition there are two sections at the end of the report summarizing the method and sample profile, and these are:

- 6) How The Public Opinion Survey Was Conducted
- 7) Who Participated in the Survey

KEY FINDINGS:

General Perceptions:

- Considering a list of six issues that cover a broad range of topics, more citizens are concerned with health care, education, the economy, safety and crime, and social services over the environment.
 - Citizens in urban neighborhoods are *more* likely and citizens in rural neighborhoods are *less* likely to be concerned about the environment.
- Specifically, with regard to the seriousness of ten solid waste and disposal problems, significantly more citizens perceive the dumping of trash on public lands as a serious problem compared to all other issues with the exception litter in Missouri, which ranks a close second as a serious problem.
- About one in three citizens say they are very or somewhat familiar with their local Solid Waste Management District.
- The newspaper and television is how most citizens get information related to solid waste.

Key Findings (2)

Solid Waste and Its Disposal:

- Nine out of ten Missourians are served by trash collection. Citizens in rural neighborhoods are *least* likely to have trash collection.
- About two thirds of Missourians have a private company and about one third have their city doing their trash collection.
 - Citizens in urban neighborhoods are more likely than those in rural or suburban communities to have the city doing their trash collection.
- Most Missouri citizens have once-a-week trash collection.
- Citizens pay on average \$14.90 a month for trash collection.
 - Citizens in rural neighborhoods pay a slightly higher bill (\$16.30) and citizens in urban neighborhoods pay a slightly lower bill (\$13.90).
- Missouri citizens say their trash collection provider is doing a good job – four out of five say they are satisfied.
- Missouri citizens generate on average 3 bags of trash per week.
- The majority of Missouri citizens think that for residential households the trash collection fee should be the same for all households regardless of how much trash is produced. However, for businesses, Missouri citizens think the trash collection fee should vary depending on how much trash a business produces.

Recycling:

- About three out of four Missouri citizens say they recycle. The percentage of citizens that recycle is consistent across all neighborhood types and age groups.
- Among those that recycle, about two thirds say they take their recycling to a drop off. About one in four have curbside recycling.
 - More citizens in rural neighborhoods, about four out of five, take their recycling to a drop off.
- Among those that recycle, these citizens say they recycle because it teaches good values, to earn money (including money for non-profit groups), and to conserve resources.
 - Citizens in rural communities are more likely to recycle to earn money.
- Of those that recycle, about half say their households are recycling about the same amount as they were 2 to 3 years ago. About one in three say they are recycling more than they were 2 to 3 years ago. Those that recycle more say it is because they are more aware, more educated, and more concerned about the environment.
 - Citizens that are under 40 years old are the most likely to say they are recycling more – almost half are recycling more.

Key Findings (3)

Recycling (continued):

- The top three items recycled are aluminum cans (soda, beer), newspaper, and plastic containers. The three items least recycled are cereal boxes, scrap metal, and telephone books.
 - Citizens in rural communities are more likely to recycle aluminum cans.
- To motivate them to recycle more, citizens most frequently say having curbside pick up for recyclables would motivate them.
 - Citizens in rural communities are more likely to say having closer recycling centers would motivate them.
 - Citizens < 60 years (18-59) are more likely to say having curbside pick up would motivate them.
 - Citizens < 40 years are more likely to say getting paid more would motivate them.
 - Citizens 60+ years are more likely to say nothing can motivate them.
- About half of the citizens that recycle say they would be willing to pay nothing extra so they could recycle. However, about one third do say they would be willing to pay \$1.00 or more so they could recycle.
 - Citizens 60+ years are most likely to be unwilling to pay anything extra so they could recycle.
- For citizens that don't recycle, the reasons most frequently given are they do not have a recycling center/they do not know if they have a recycling center or it is too much work/inconvenient/they have no time.
 - Those citizens 40-59 years are most likely to say it is too much work/inconvenient/no time.
- To motivate citizens that don't currently recycle to start recycling, having closer recycling centers, having curbside pick up, or providing recycling bins are each mentioned by about one in ten.
- About one in three citizens agrees that trash disposal costs should be increased to encourage more recycling.
- About half of Missourians say they try to buy items made from recycled materials. Recycled paper is the item most frequently mentioned that citizens try to purchase recycled.
- About three out of four citizens perceive that recycled products offer the same quality as products made from new materials.

Yard Waste:

- Among those with yard waste, composting, mulching and curbside pick up are the most frequently mentioned methods used to manage the material.
- Only about one out of five respondents composts food waste from the kitchen.
 - Those in rural communities are most likely to compost food waste.

Key Findings (4)

Responsibility For Disposal and Clean Up:

- Missourians most frequently say individuals/households should have the greatest responsibility for disposing of solid waste/trash, with about one in three saying this.
- Missourians most frequently say the state/local government or the person/business responsible for dumping the waste should have the greatest responsibility for cleaning up Missouri's illegal dump sites.
- Two-thirds of Missourians agree that manufacturers should share in the responsibility of recycling or disposing of the products they sell.
- Four out of five Missourians agree that the state should support the increased use of ground waste tires as an ingredient in asphalt for paving highways.

CONCLUSIONS:

- Health care, education, the economy, safety/crime, and social services are getting more mind-share as issues of importance than is the environment.
- Solid waste issues such as the dumping of trash on public lands and the dumping of trash on other people's property are seen as serious solid waste problems.
- More awareness and more concern for the environment, for some, has resulted in an increase in their recycling.
- One opportunity for increasing recycling is to promote the recycling of items that many are not currently recycling (i.e., cereal boxes, telephone books...).
- Having curbside pick up, having recycling bins, having closer recycling centers – all related to convenience - and providing more opportunity to get paid for recycling, are key motivators to increasing or starting recycling.
- The 60+ age group is perhaps the group to least focus on for starting or increasing recycling - they are more likely to say nothing can motivate them to start recycling or to recycle more and they are more likely to be unwilling to pay anything extra to recycle.

General Perceptions of Missouri Citizens

~ Issues of Importance, Environmental Issues, &
Solid Waste Issues ~

Most Important Issues To Missouri Citizens

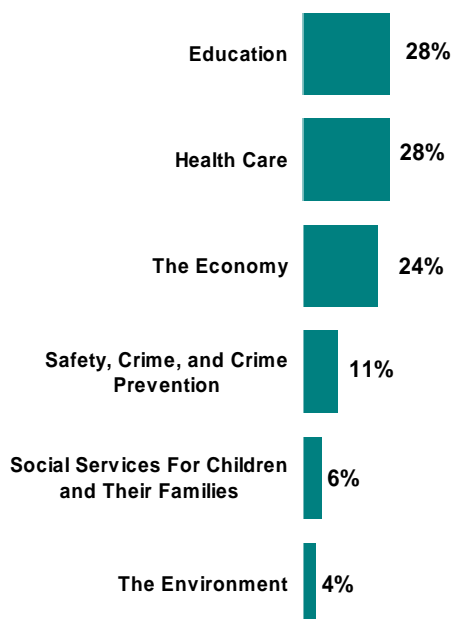
When asked to identify from a list of six issues ‘Which one issue is the MOST important to you as a citizen of Missouri’ – respondents most frequently say education, health care or the economy.

The environment ranks last among six issues.

Combining respondents’ first, second, and third most important issues, the picture is similar - health care, education and the economy are most frequently identified.

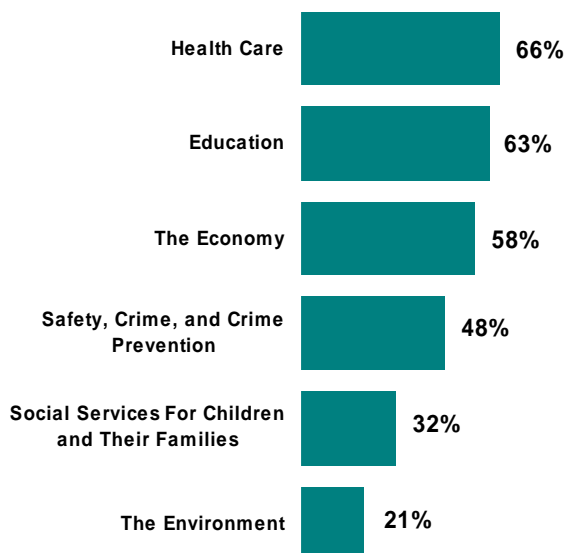
I'm going to read a list of six issues. Please tell me which one is MOST important to you as a citizen of Missouri, second most important, and third most important.

~ THE MOST IMPORTANT ISSUE ~ (First mention only)



I'm going to read a list of six issues. Please tell me which one is MOST important to you as a citizen of Missouri, second most important, and third most important.

~ SUMMARY OF IMPORTANT ISSUES ~ (First, Second and Third Most Important Issue Combined)



Most Important Issues - By Neighborhood Type and Age

Respondents in suburban and rural neighborhoods are more likely to say the economy is a serious issue.

Respondents in rural neighborhoods are more likely to say safety/crime is a serious issue.

Respondents in urban neighborhoods and to a lesser extent those in suburban neighborhoods are more likely to say the environment is a serious issue.

Those 60 years or older are more likely to say health care is a serious issue.

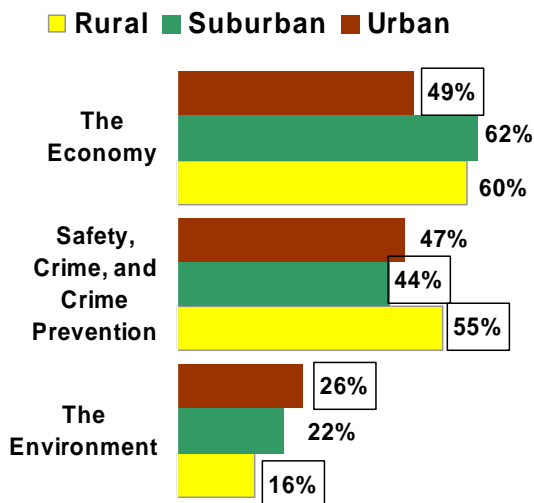
Those under 60 years (18-59) are more likely to say education is a serious issue.

Those under 40 years are more likely to say safety/crime is a serious issue.

~ SUMMARY OF IMPORTANT ISSUES ~

(First, Second and Third Most Important Issue Combined)

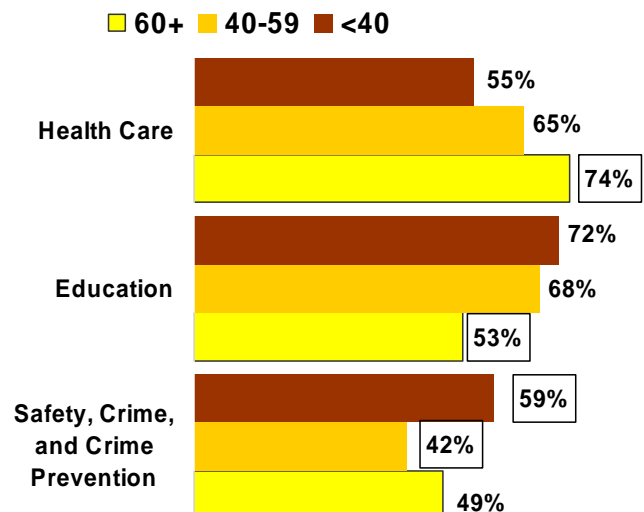
BY NEIGHBORHOOD TYPE



~ SUMMARY OF IMPORTANT ISSUES ~

(First, Second and Third Most Important Issue Combined)

BY AGE

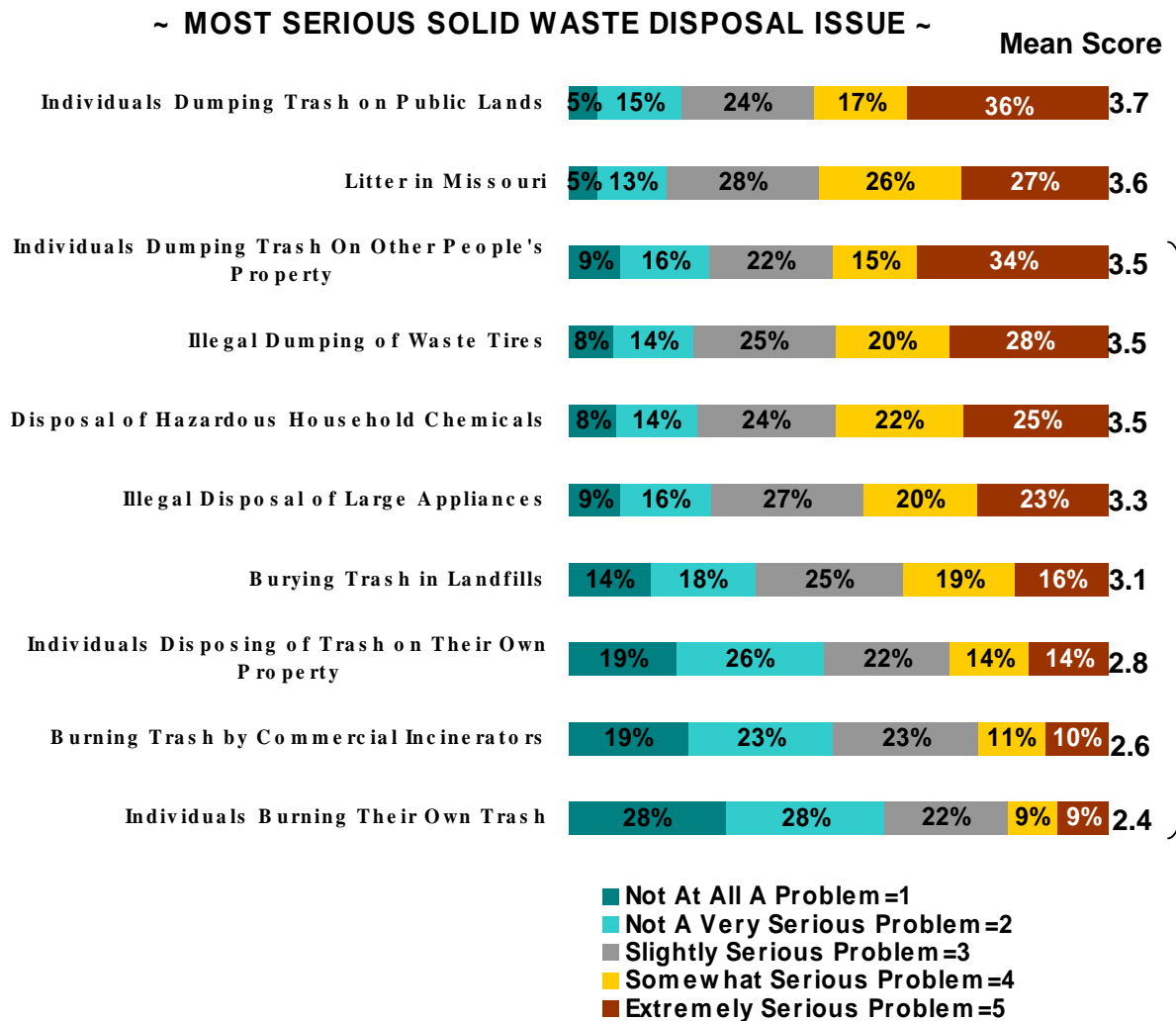


□ Significantly higher/lower comparing across neighborhood type or age groupings at a 95% confidence level. For example, respondents in suburban and rural neighborhoods are significantly more likely as compared to urban respondents to rate the economy as a serious issue. If two percentages are noted in one grouping – this means that the significant difference is between these two subgroups. If one percentage is noted in one grouping - this means this one subgroup is significantly different than both of the other subgroups.

Most Serious Solid Waste Disposal Issue

Specifically with regard to solid waste issues, the dumping of trash on public lands is rated by significantly more citizens as a serious solid waste issue compared to all other issues except for the issue of litter in Missouri, which ranks a very close second as a serious problem.

Thinking of solid waste and its disposal, for each of the following please rate whether or not they are an environmental problem in Missouri.



Scale was 1 to 5; 5 is anchored with 'extremely serious problem' and 1 is anchored with 'not at all a problem,' numbers in between were not anchored with descriptive terms as shown in key

Don't knows not reported in above graph

} Mean for Dumping Trash on Public Lands is statistically higher than all other means at 95% confidence, except for Litter in Missouri

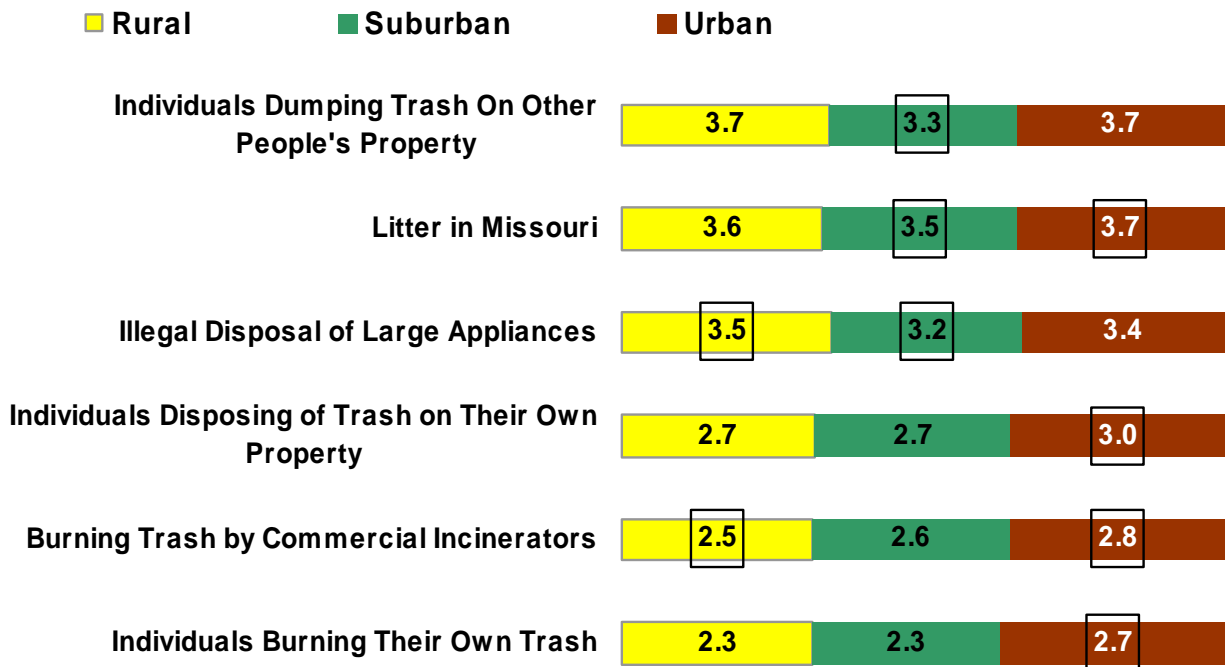
Most Serious Solid Waste Disposal Issue By Neighborhood Type

Respondents in rural neighborhoods are more likely to view individuals dumping trash on other's property and the illegal disposal of large appliances as serious issues.

Respondents in urban neighborhoods are more likely to view individuals dumping trash on other's property, litter in Missouri, individuals disposing of trash on their own property, burning trash by commercial incinerators, and individuals burning their own trash as serious issues.

Thinking of solid waste and its disposal, for each of the following please rate whether or not they are an environmental problem in Missouri.

~ MOST SERIOUS SOLID WASTE DISPOSAL ISSUE ~ BY NEIGHBORHOOD TYPE Average Ratings



□ Significantly higher/lower comparing across neighborhood type at a 95% confidence level. For example, respondents in urban neighborhoods are significantly more likely as compared to both suburban and rural respondents to say that individuals dumping trash on their own property is a serious issue. If two percentages are noted on one bar – this means that the significant difference is between these two subgroups. If one percentage is noted on a bar - this means this one subgroup is significantly different than both of the other subgroups.

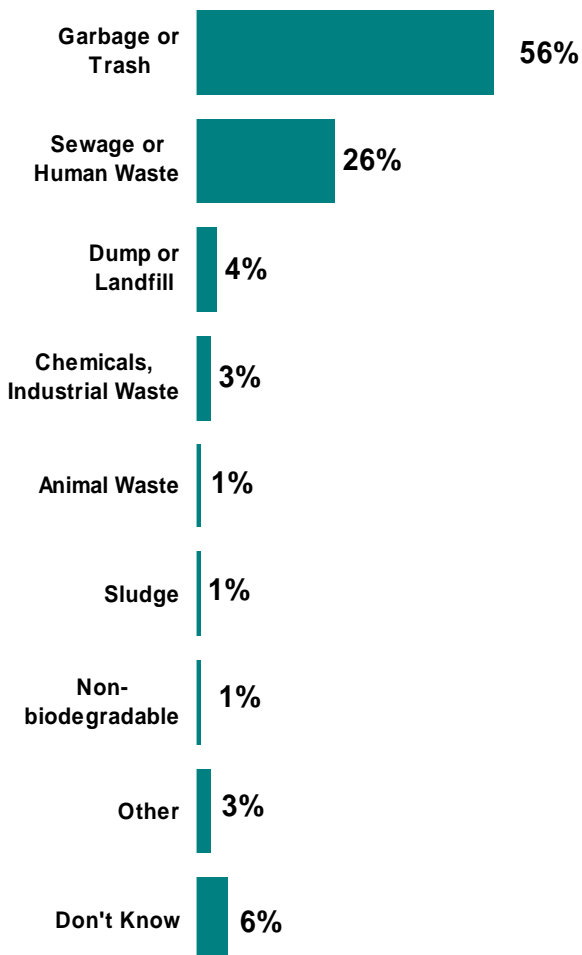
Solid Waste – Perceptions of The Term

About two out of three respondents (69%) define solid waste as garbage or trash – indicating the term is well understood by most Missouri citizens.

About one out of three respondents (30%) associate sewage with the term solid waste.

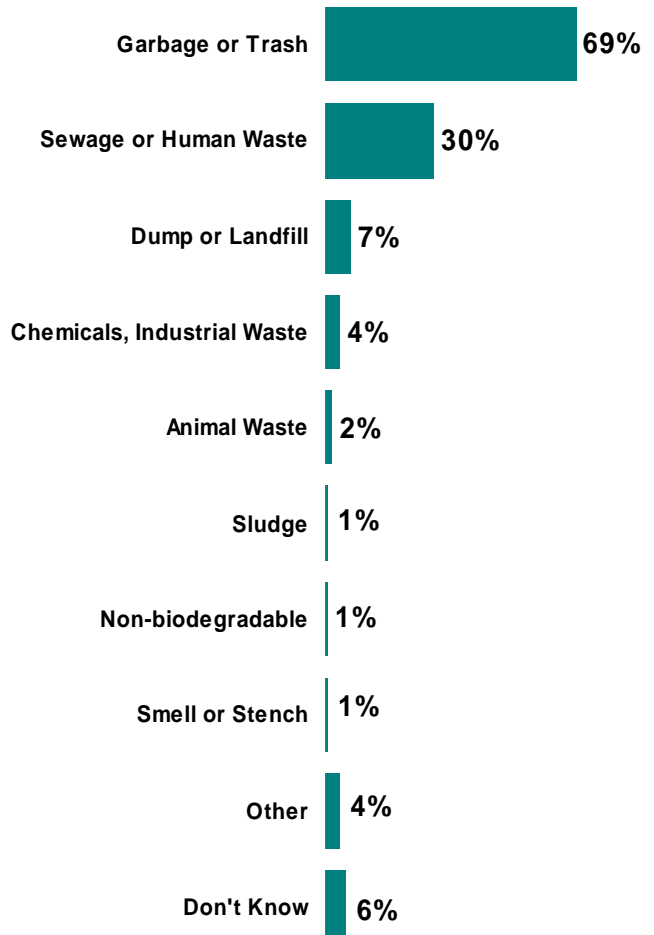
...How do you define that term 'solid waste' - what comes to mind?

~ TERM SOLID WASTE - TOP OF MIND ~ (First Mention Only)



...How do you define that term 'solid waste' - what comes to mind?

~ TERM SOLID WASTE - COMES TO MIND ~ (First, Second, and Third Mentions Combined)

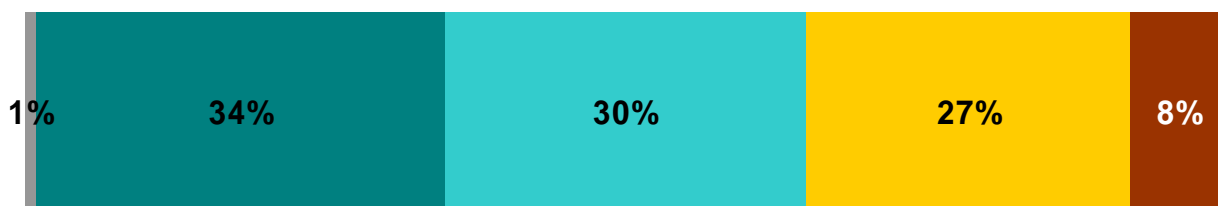


Familiarity With Solid Waste Management District

About one out of three respondents (35%) say they are very or somewhat familiar with their local Solid Waste Management District.

Missouri has 20 Solid Waste Management Districts. Each District provides assistance to communities for waste reduction and recycling. How familiar are you with your local Solid Waste Management District?

~ FAMILIARITY - SOLID WASTE MANAGEMENT DISTRICT ~



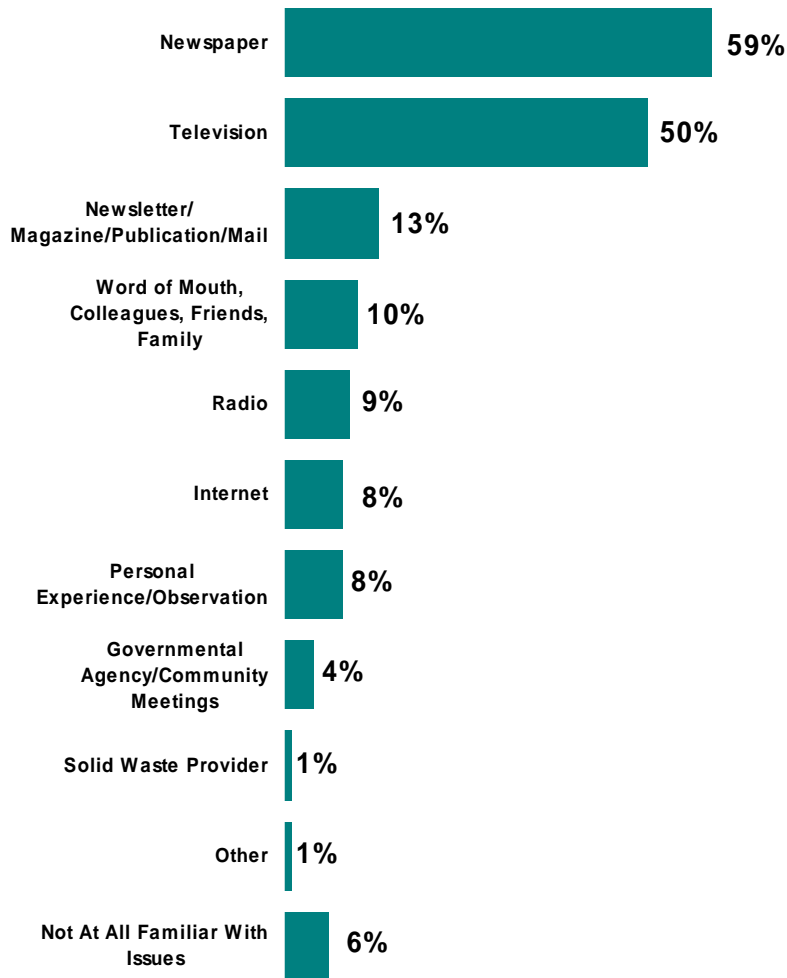
- Don't Know
- Not At All Familiar
- Not Very Familiar
- Somewhat Familiar
- Very Familiar

Information Sources

For getting information about current issues related to solid waste, newspaper and television are the most used sources among Missouri citizens.

How do you get information about current issues related to solid waste?

~ INFORMATION SOURCES FOR SOLID WASTE ~



Don't knows not reported in above graph

~ Detailed Perceptions and Behaviors ~
With Regard To Solid Waste and Its Disposal

Household Served By Trash Collection

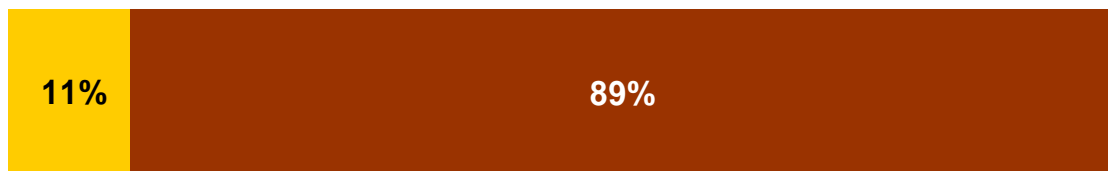
About one in ten (89%) respondents say their household is served by trash collection.

Respondents in rural neighborhoods are significantly more likely to *not* be served by trash collection.

Is your household served by trash collection?

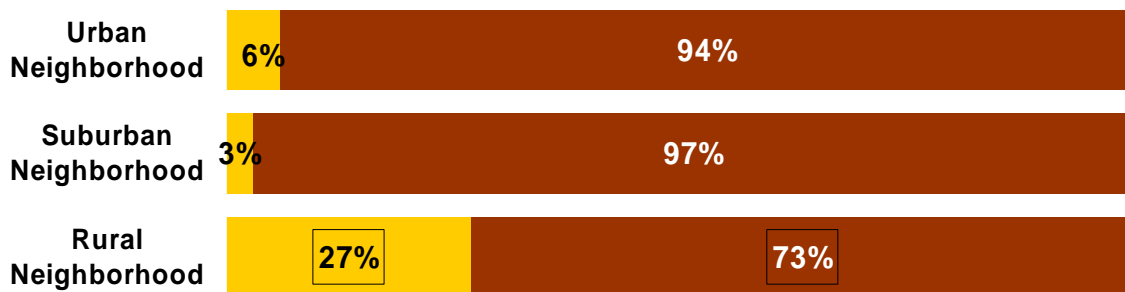
~ HOUSEHOLD SERVED BY TRASH COLLECTION ~

■ No ■ Yes



~ HOUSEHOLD SERVED BY TRASH COLLECTION ~
BY NEIGHBORHOOD TYPE

■ No ■ Yes



☐ Respondents in rural neighborhoods are statistically more likely to NOT be served by trash collection compared to both suburban and urban respondents at a 95% confidence level

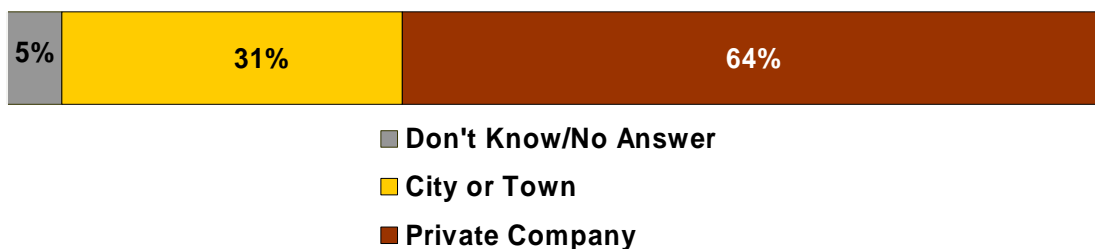
Service Provider Private Company or City

About two out of three (64%) respondents say their trash is collected by a private company.

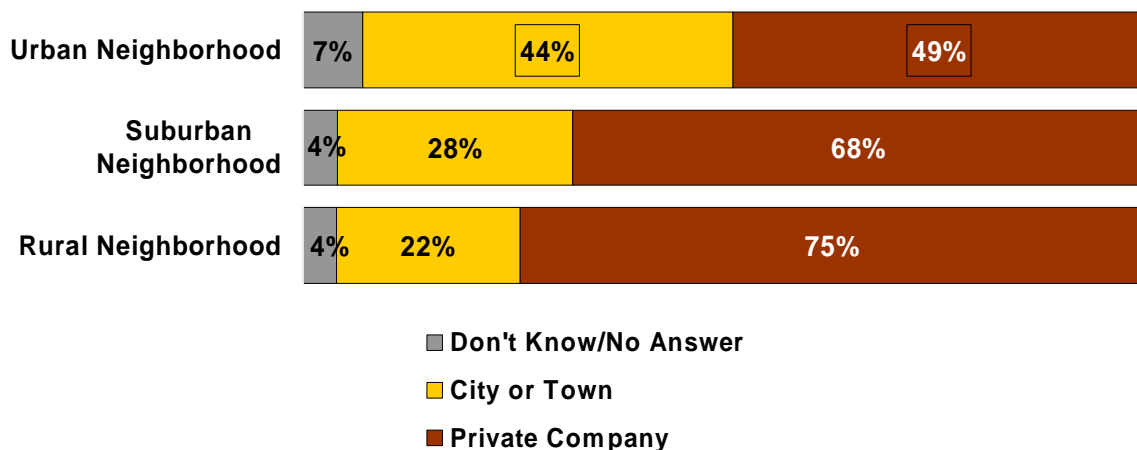
Respondents in urban neighborhoods are significantly more likely to say their trash is collected by their city.

Is your trash collected by a private company or provided by the city or town?

~ SOLID WASTE SERVICE PROVIDER ~



~ SOLID WASTE SERVICE PROVIDER ~ BY NEIGHBORHOOD TYPE



☐ Respondents in urban neighborhoods are statistically more likely to be serviced by their city/town and less likely to be serviced by a private company compared to respondents in both rural and suburban neighborhoods at 95% confidence

Frequency of Trash Collection

About three out of four (73%) respondents say their trash is picked up once a week.

Respondents in rural neighborhoods are more likely to have trash pick up only once a week.

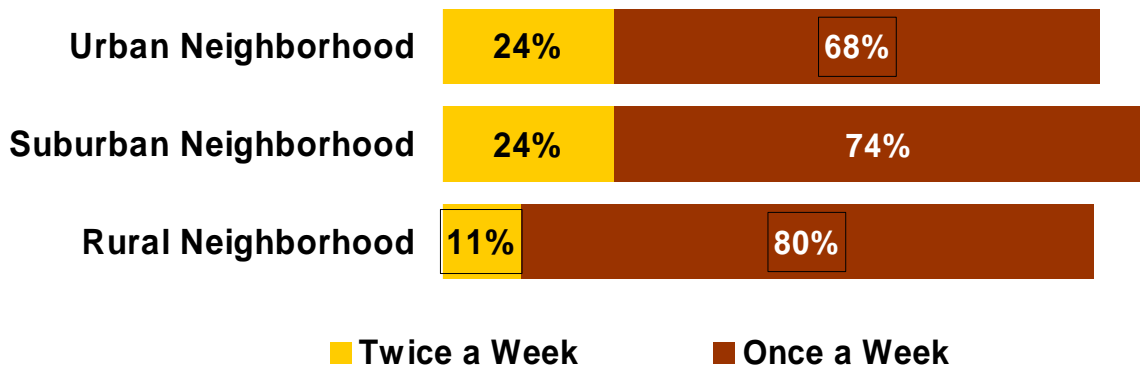
If you have trash collection: How often is your trash picked up by your trash collection service?

~ FREQUENCY OF TRASH COLLECTION ~



- Some Other Schedule
- More Than Two Times a Week
- Twice a Week
- Once a Week

~ FREQUENCY OF TRASH COLLECTION ~ BY NEIGHBORHOOD TYPE



☐ Significantly higher/lower comparing across neighborhood type at a 95% confidence level

Don't knows not reported in above graphs

Average Monthly Bill

Missouri citizens report they pay on average \$14.90 per month for trash collection.

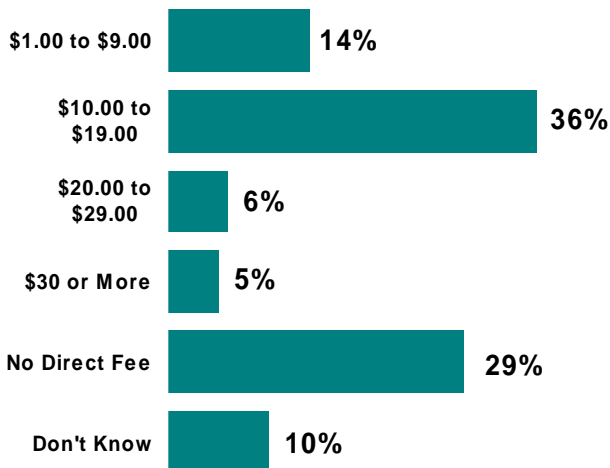
Respondents in urban areas pay on average the lowest monthly bill for trash collection.

Respondents in rural neighborhoods pay on average the highest for their trash collection.

~ AVERAGE MONTHLY TRASH BILL ~

About how much do you pay for trash collection and is that a monthly bill or quarterly bill?

~ MONTHLY BILL FOR TRASH COLLECTION ~



~ AVERAGE MONTHLY TRASH BILL ~ BY NEIGHBORHOOD TYPE



☐ Respondents in urban neighborhoods report a statistically lower average monthly bill as compared to respondents in rural neighborhoods at a 95% confidence level

Satisfaction With Service Provider

Most respondents (82%) are completely or somewhat satisfied with the service they receive from their solid waste service provider.

Respondents in rural neighborhoods have the highest level of satisfaction with their service provider.

All things considered, how satisfied are you with the service you receive from your trash collection provider?

~ SATISFACTION WITH TRASH COLLECTION ~



- Completely Dissatisfied=1
- Somewhat Dissatisfied=2
- Neither Satisfied Nor Dissatisfied=3
- Somewhat Satisfied=4
- Completely Satisfied=5

~ THOSE COMPLETELY SATISFIED WITH THEIR TRASH COLLECTION PROVIDER ~ BY NEIGHBORHOOD TYPE

■ Rural ■ Suburban ■ Urban



□ Significantly higher/lower comparing across neighborhood type at a 95% confidence level

Scale was 1 to 5; 5 was anchored with 'completely satisfied' and 1 was anchored with 'completely dissatisfied,' numbers in between were not anchored with descriptive terms as shown in key

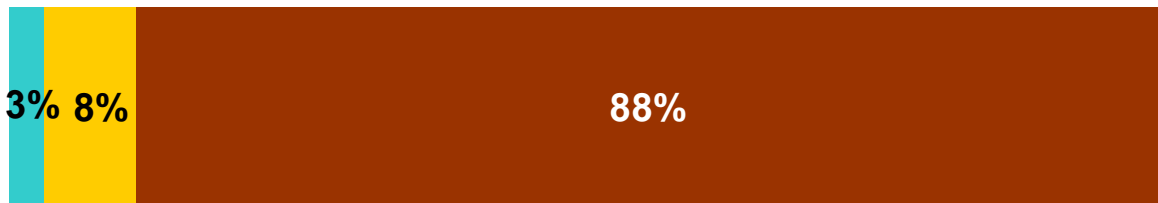
Don't knows not reported in above graphs

Person In Household Responsible For Trash

About nine out of ten (88%) say the adults in the household have responsibility for taking out the trash.

Who in your household has responsibility for taking out the trash?

**~ PERSON IN HOUSEHOLD RESPONSIBLE FOR TAKING
OUT THE TRASH ~**



- Child/Children
- Shared - Adults and Children
- Adult(s)

(Note: 64% of those surveyed have no children in the household)

Number of Trash Bags Generated Per Week

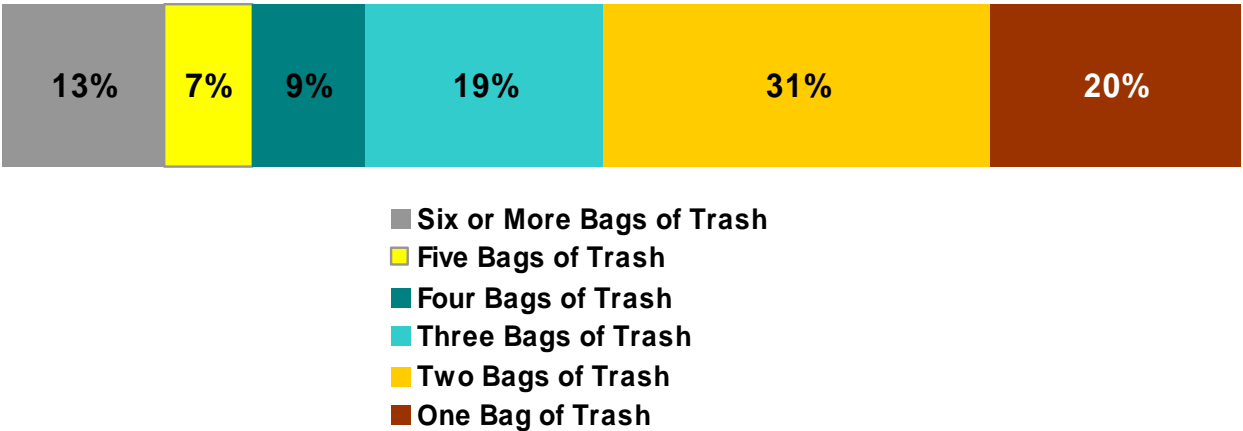
Respondents say their households generate on average about 3 bags of trash per week.

~ AVERAGE NUMBER OF TRASH BAGS PER WEEK ~



On average, about how many bags of trash does your household generate each week?

~ NUMBER OF TRASH BAGS GENERATED EACH WEEK ~



Don't knows not reported in above graph

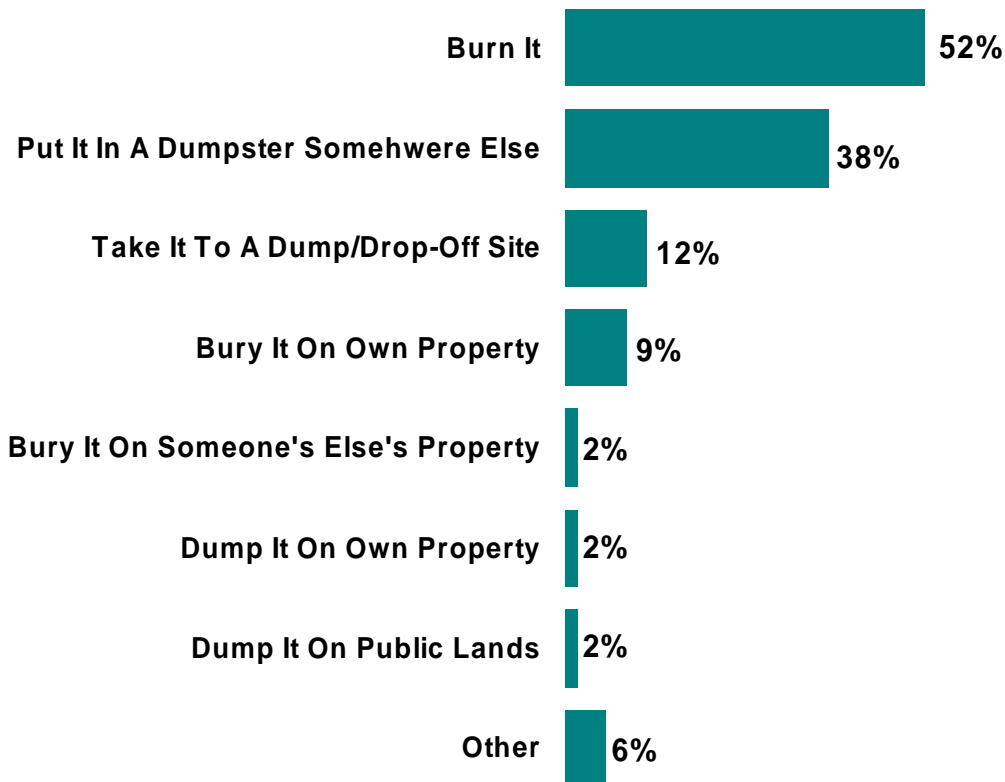
Method of Disposal If No Trash Service

Most respondents who don't have trash service say they dispose of their trash by burning it. Some also say they are taking their trash to a dumpster somewhere.

*If don't have trash collection: How do you dispose of your trash?
Please be assured that your response is anonymous.*

~ METHOD OF TRASH DISPOSAL IF DON'T HAVE TRASH COLLECTION ~

(base of 68 respondents)



Don't knows/refused not reported in above graph

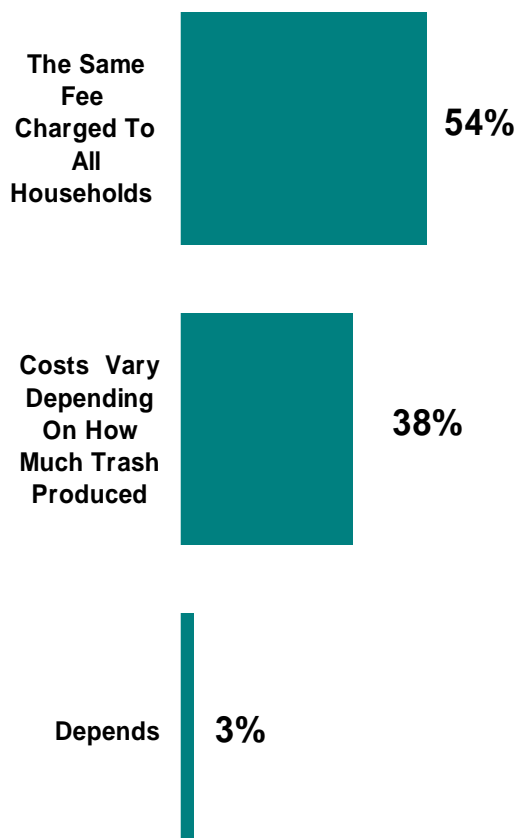
Opinions On Residential and Business Fees

The majority of Missouri citizens (54%) think that for residential households trash collection fees should be the same for all households.

The majority of citizens (76%) think that for businesses trash collection fees should vary depending on how much trash a business produces.

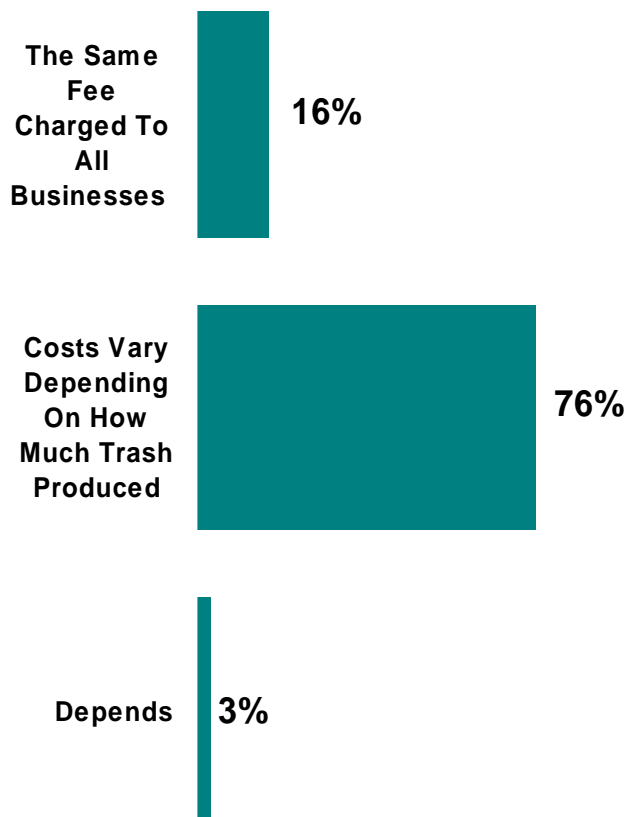
For residential households, do you think trash collection fees should be based on how much trash a household produces or should all households be charged the same amount?

~ Opinions On Trash Collection Fees For Households ~



Do you think trash collection fees for businesses should be based on how much trash they produce or should all businesses be charged the same amount?

~ Opinions On Trash Collection Fees For Businesses ~



Don't knows not reported in above graphs

~ Detailed Perceptions and Behaviors ~
With Regard To Recycling

Do You Recycle?

About three out of four Missourians say they recycle (74%).

The percentage of Missourians that say they recycle is consistent across neighborhood type – respondents in urban, rural, and suburban neighborhoods are all equally likely to say they recycle (no graph shown).

The percentage of Missourians that say they recycle is consistent across age groupings – respondents 60 years or older, those 40-59, and those younger than 40 are all equally likely to say they recycle (no graph shown).

~ RECYCLE YES OR NO ~

■ No, Do Not Recycle

■ Yes, Recycle



Have Curbside Recycling Or Take To Drop Off

Of those that recycle, about two thirds (65%) take their recycling to a drop off.

Respondents in rural neighborhoods are significantly more likely to take their recycling to a drop off site.

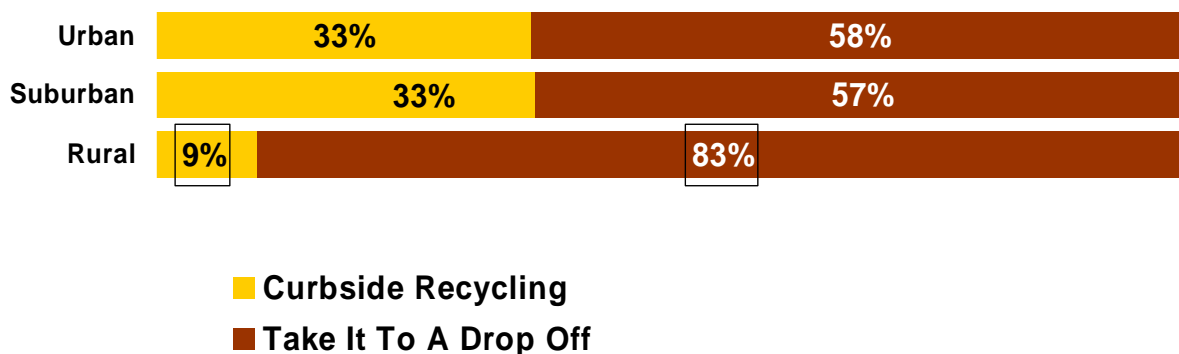
Do you have curbside recycling or do you take it to a drop off?

~ CURBSIDE RECYCLING OR DROP OFF ~



Do you have curbside recycling or do you take it to a drop off?

~ CURBSIDE OR DROP OFF ~ BY NEIGHBORHOOD TYPE



☐ Significantly higher/lower comparing across neighborhood type at a 95% confidence level
Don't knows not reported in above graphs

Main Reason Household Recycles

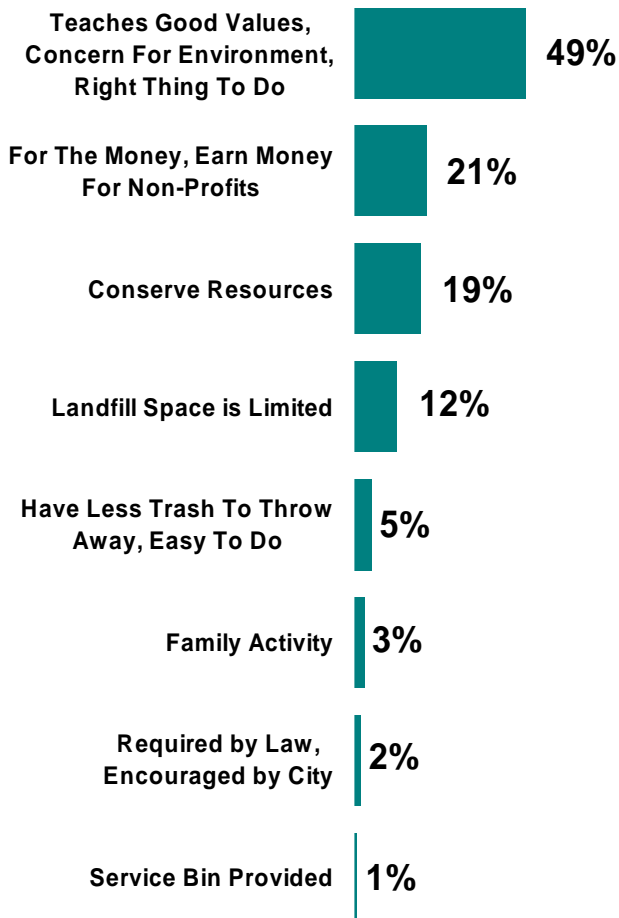
Respondents that recycle, most frequently say the main reason is because it teaches good values.

Suburban respondents are significantly more likely to say they recycle because it teaches good values.

Rural citizens are significantly more likely to say they recycle to earn money.

What is the main reason your household recycles?

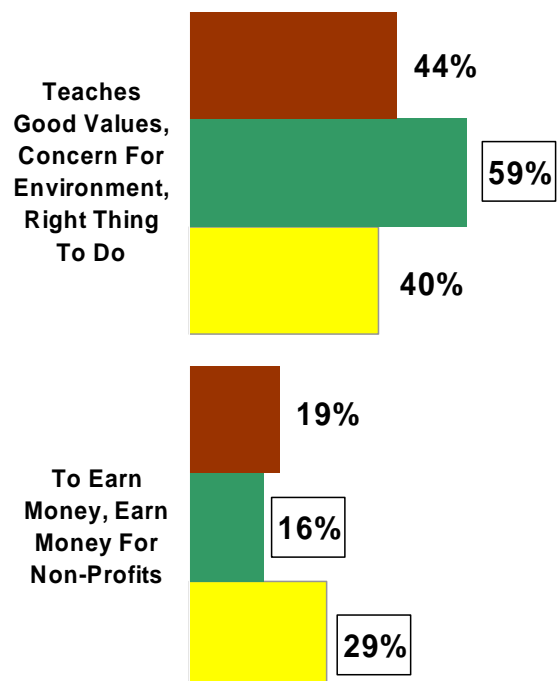
~ REASON FOR RECYCLING ~



What is the main reason your household recycles?

~ REASON FOR RECYCLING ~
BY NEIGHBORHOOD TYPE

■ Rural ■ Suburban ■ Urban



□ Significantly different comparing across neighborhood type at 95% confidence

'Other' category and don't knows not reported in above graphs

Recycling More, Less, Or About the Same

Of those that recycle, most (52%) say they are recycling about the same as they were 2 to 3 years ago. While about one in three (33%) say they are recycling a lot or a little more as compared to several years ago.

Respondents under 40 years old are most likely to have increased their recycling.

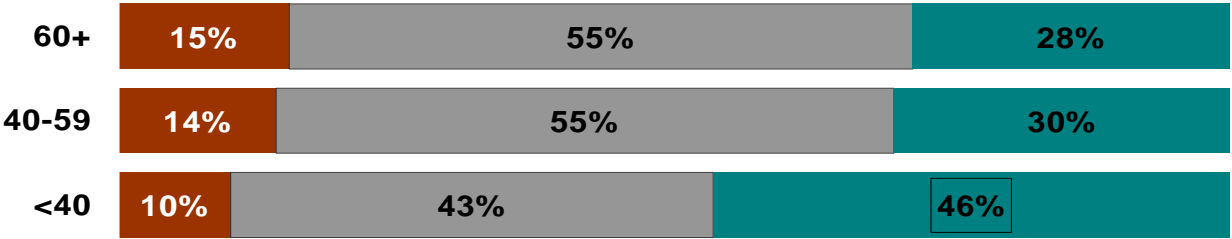
Overall, would you say your household recycles a lot more, a little more, about the same, a little less, or a lot less as compared to 2 to 3 years ago?

~ RECYCLING MORE, LESS, OR ABOUT THE SAME ~



■ A Lot Less ■ A Little Less ■ About The Same ■ A Little More ■ A Lot More

~ TRENDS ~ BY AGE CATEGORY



■ Recycle A Lot/Little Less ■ Recycle About The Same ■ Recycle A Lot/Little More

☐ Respondents under 40 compared to both other age groups are significantly more likely to be recycling a lot/a little more at 95% confidence

Don't knows not reported in above graphs

Reason Recycle More, Less, Or About The Same

The most frequent reason respondents give for recycling more is that they are more aware, educated and concerned about the environment.

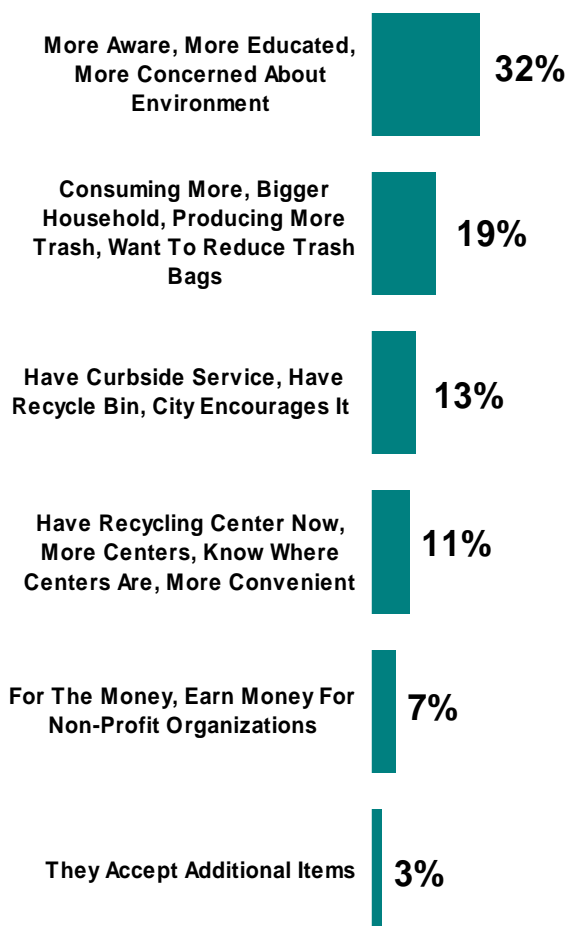
The most frequent reason respondents give for recycling less is that they are consuming less/have a smaller household.

Those recycling about the same amount say their habits/consumption are the same (no graph shown).

... Why are you recycling more as compared to a few years ago?

(base of 151 respondents)

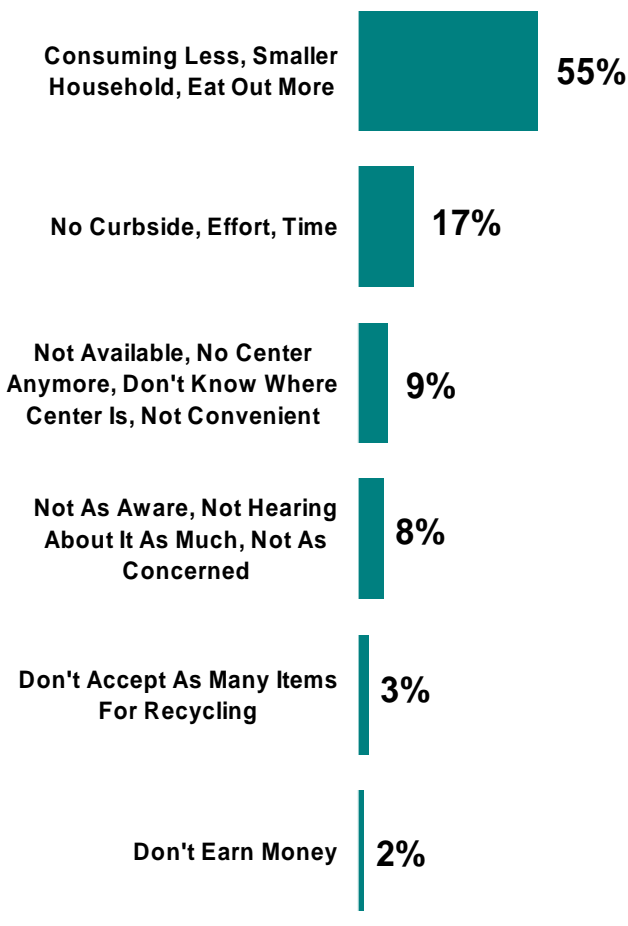
~ REASON RECYCLE MORE ~



... Why are you recycling less as compared to a few years ago?

(base of 64 respondents)

~ REASON RECYCLE LESS ~



'Other' category not reported in above graphs

Person In Household Participating In Recycling

For those that are recycling, most say it is the adults in the household that participate in recycling.

Who in your household participates in recycling?

~ PEOPLE IN HOUSEHOLD PARTICIPATING IN RECYCLING ~



- Child/Children
- Shared - Adults and Children
- Adult(s)

Note: of those that recycle 62%, have no children in the household

Don't knows not reported in above graph

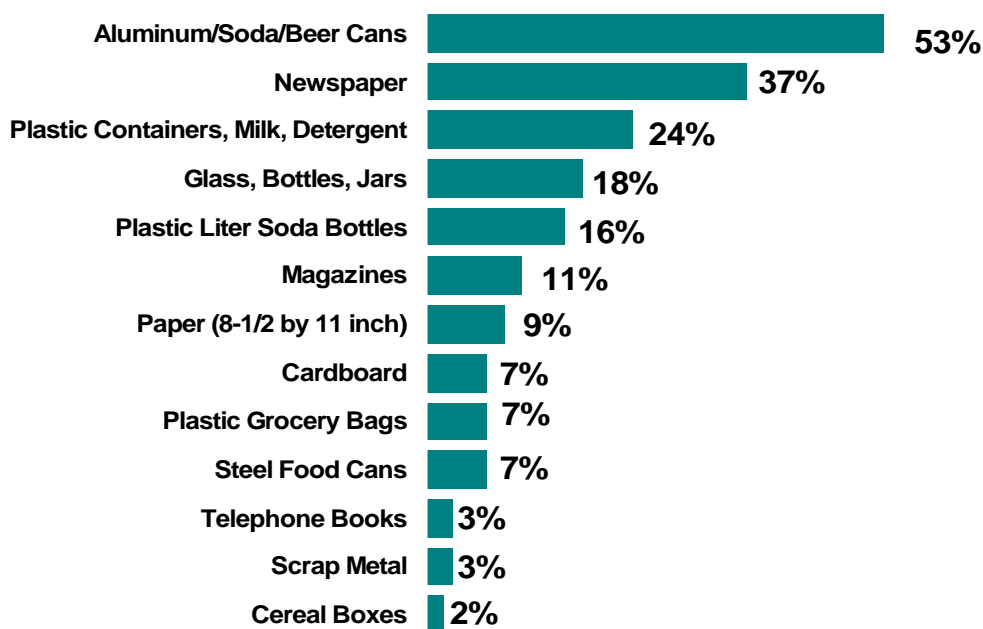
Items Recycled

Respondents that recycle, most frequently mention aluminum cans, newspaper, and plastic containers as the items they recycle.

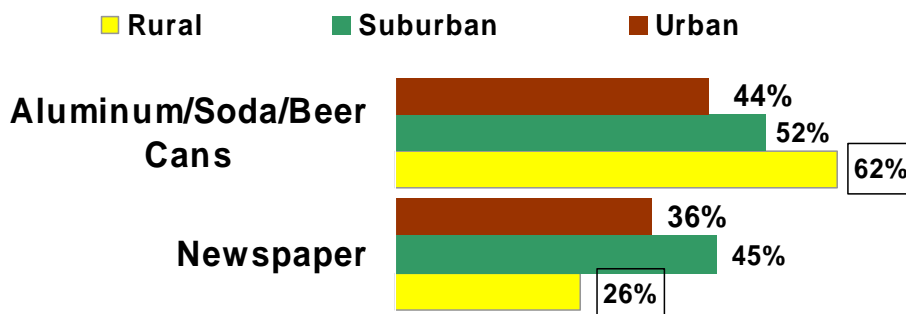
Respondents in rural neighborhoods are significantly more likely to be recycling aluminum cans and less likely to be recycling newspaper.

What, if any items, does your household typically recycle?

~ Items Recycled ~



~ ITEMS RECYCLE ~ BY NEIGHBORHOOD TYPE



☐ Significant difference comparing across neighborhood type at 95% confidence

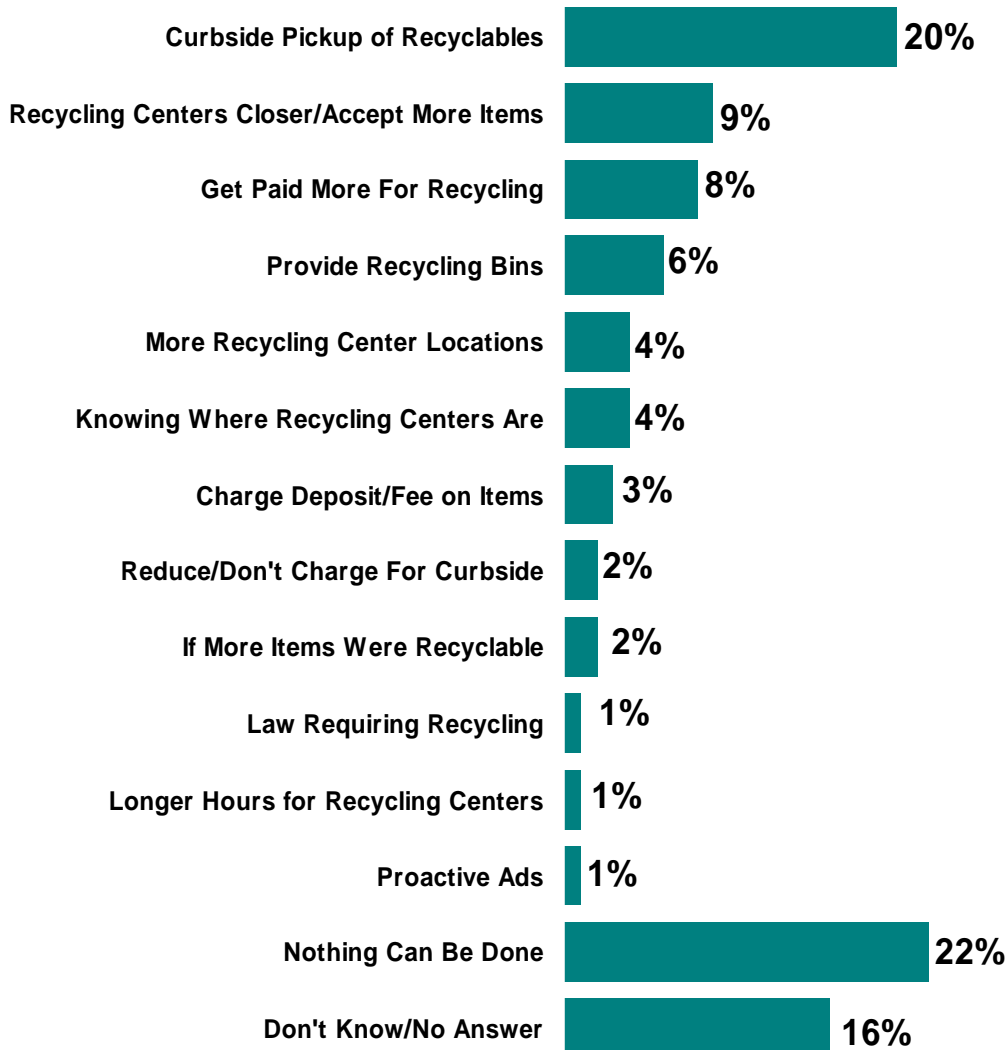
'Other' category and don't knows not reported in above graph

What Would Motivate You To Recycle MORE?

Among those that recycle, one in five respondents (20%) say having curbside pickup would be a factor that would motivate them to recycle more. About one in five respondents (22%) say nothing can be done to motivate them to recycle more.

What would motivate your household to recycle more?

~ Motivating Factors ~



'Other' categories not reported in above graph

What Would Motivate You To Recycle MORE? – By Neighborhood Type and Age

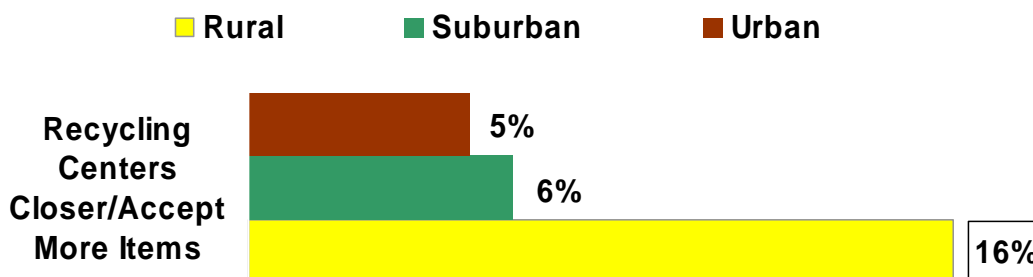
Respondents in rural areas are more likely to be motivated by having closer recycling centers.

Respondents under 60 years (18-59) are more likely to be motivated by having curbside pickup.

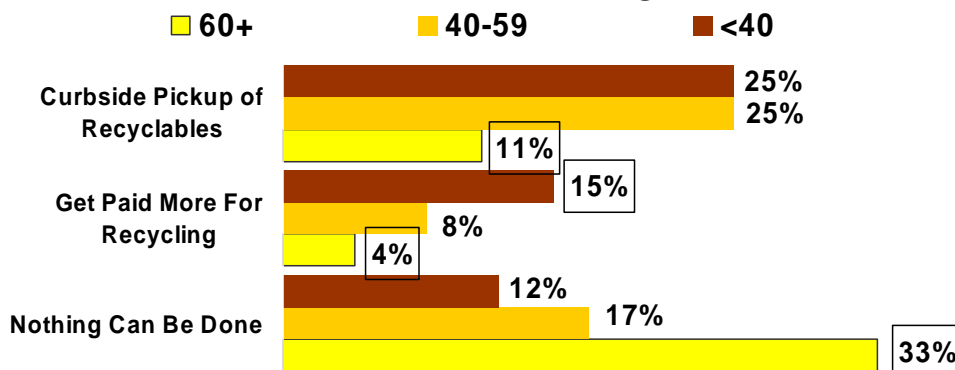
Respondents under 40 years are more likely to be motivated by getting paid more for recycling.

Respondents 60+ years are most likely to say that nothing can be done to motivate them to recycle more.

~ MOTIVATING FACTORS ~ BY NEIGHBORHOOD TYPE



~ MOTIVATING FACTORS ~ BY AGE



□ Significant difference comparing across neighborhood type or comparing across age groupings at 95% confidence

'Other' categories not reported in above graph

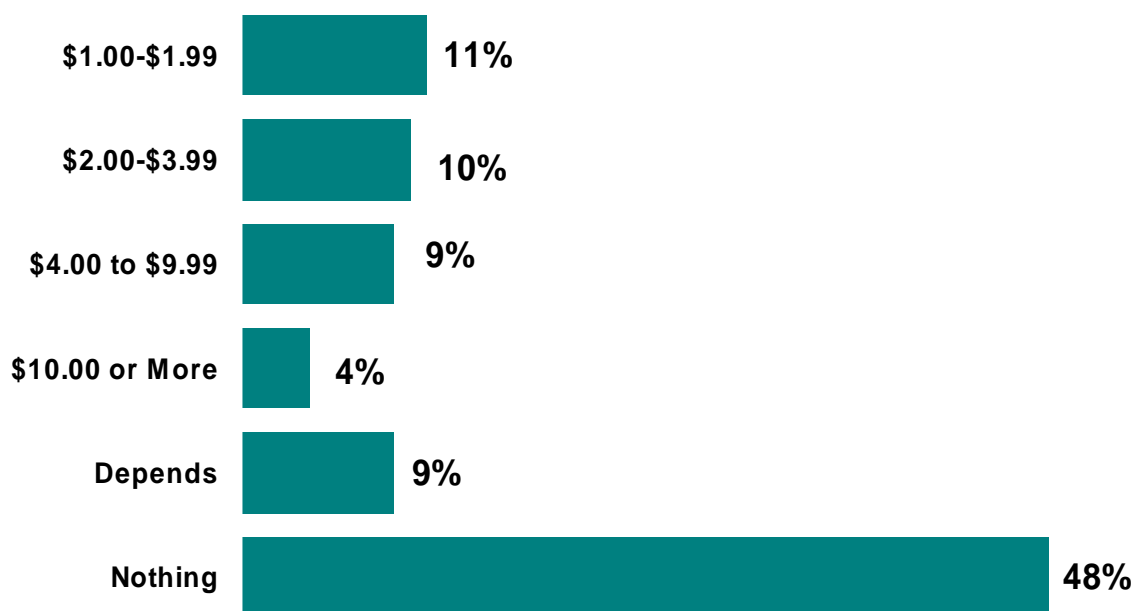
Willingness To Pay So Could Recycle

Among those that currently recycle, about half of the respondents (48%) say they would be willing to pay nothing extra so they could recycle. About one third (34%) say they would be willing to pay \$1.00 or more so they could recycle.

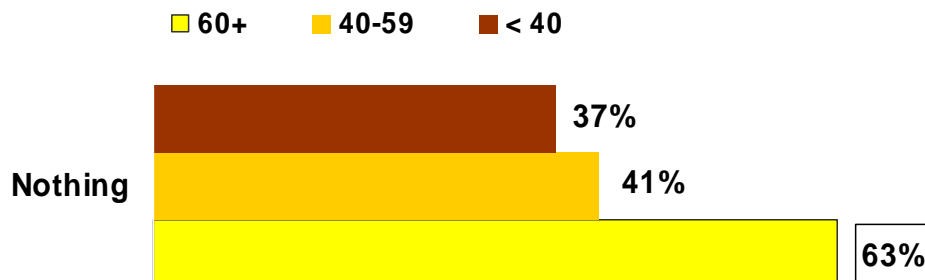
Respondents 60+ years are significantly more likely to be unwilling to pay any amount so they could recycle.

How much extra would you be willing to pay so you could recycle?

~ AMOUNT WILLING TO PAY TO RECYCLE ~



~ AMOUNT WILLING TO PAY TO RECYCLE ~ BY AGE



☐ Significantly different comparing across age groups at 95% confidence

Don't knows not reported in above graphs

Reason For Not Recycling

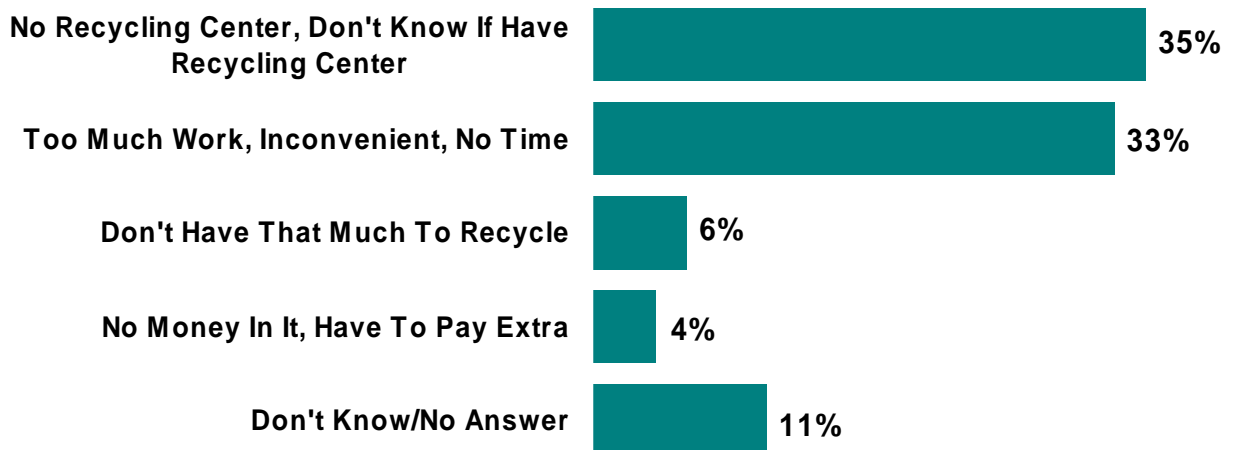
For respondents that do not recycle, many say they don't recycle because there is no recycling center or they don't know if they have recycling center. Many also say they don't recycle because it is too much work, is inconvenient and they don't have the time.

Respondents that are 40-59 are more likely to say they don't recycle because it is too much work, is inconvenient, or they don't have the time.

Can you describe the reason why you don't recycle?

~ REASON FOR NOT RECYCLING ~

(base = 159 respondents)



Can you describe the reason why you don't recycle?

~ REASON FOR NOT RECYCLING ~ BY AGE

60+ 40-59 <40



☐ Significantly different comparing across age groups at 95% confidence

'Other' category not reported in above graphs

What Would Motivate You To START Recycle?

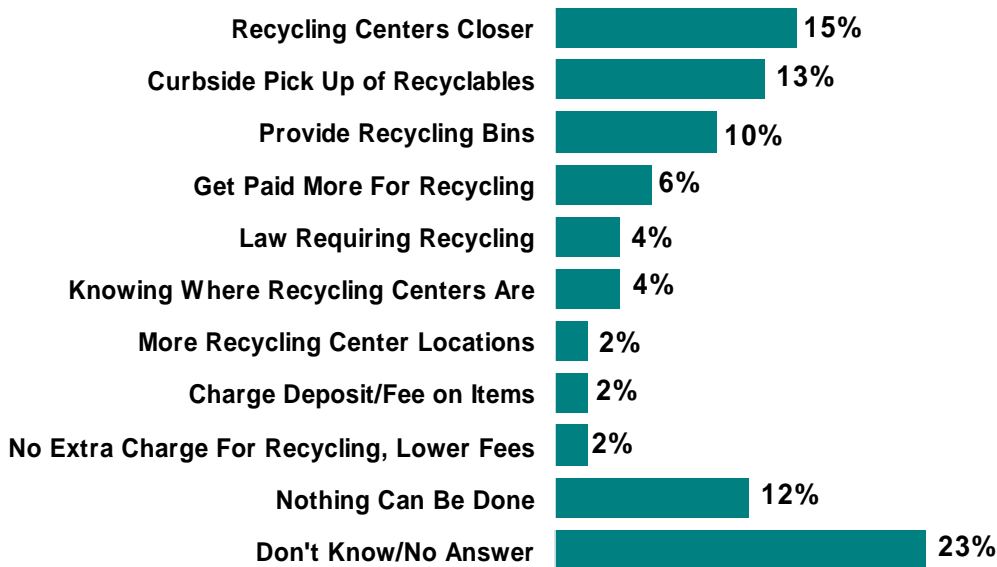
Among those that DO NOT recycle, there is no single dominant answer that would motivate them to start recycling. About one in ten say either having closer recycling centers (15%), curbside pickup (13%), recycling bins (10%), or getting paid more for recycling (6%) would motivate them to start recycling.

Respondents under 60 years (18-59) are more likely to be motivated by having closer recycling centers.

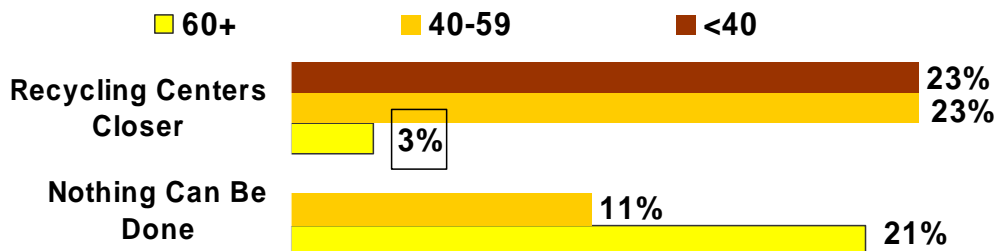
Respondents 60+ years and those 40-59 are more likely to say that nothing can be done to motivate them to start recycling.

What would motivate you to START recycling?

~ **Motivating Factors** ~



~ **MOTIVATING FACTOR TO START RECYCLING** ~
BY AGE



□ Significant difference comparing across age groupings at 95% confidence

'Other' categories not reported in above graph

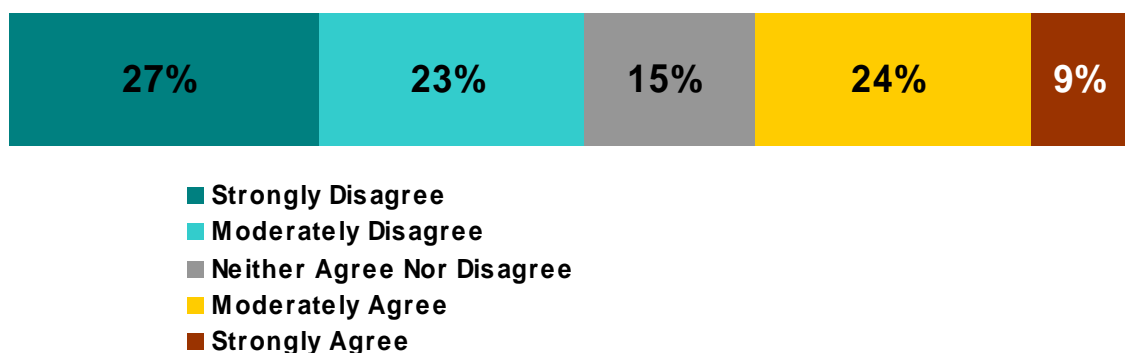
Should Household Disposal Costs Be Increased To Encourage Recycling?

Among all respondents one in three (33%) agrees strongly or moderately that trash disposal costs should be increased to encourage more recycling.

Respondents that currently recycle are significantly more likely to agree strongly or moderately with the statement about increasing household trash disposal costs to encourage more recycling.

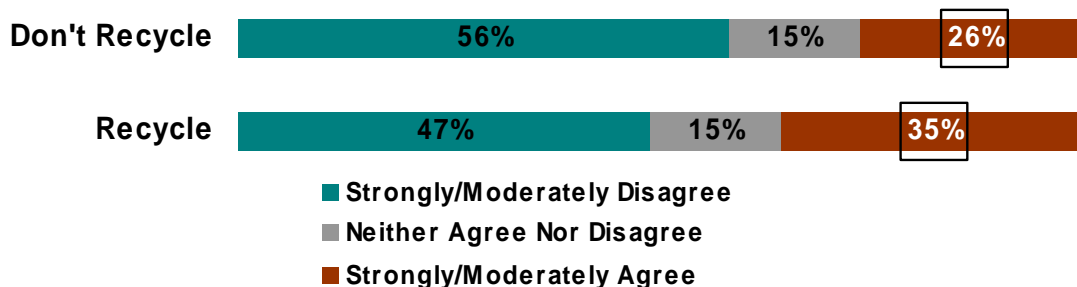
*Recycling in many cases is not cost effective. With this in mind, how strongly do you agree or disagree with the following statement:
"Household trash disposal costs should be increased to encourage more recycling?"*

~ AGREE/DISAGREE WITH STATEMENT ~



"Household trash disposal costs should be increased to encourage more recycling?"

~ AGREE/DISAGREE WITH STATEMENT ~ BY RECYCLE/DON'T RECYCLE



☐ Significant difference comparing those that recycle to those that do not recycle

Don't knows not reported in above graphs

Buying Items Made From Recycled Materials

A little more than half (53%) of all respondents say they try to buy items made from recycled materials.

Does your household try to buy items made from recycled materials?

~ BUYING ITEMS FROM RECYCLED MATERIALS ~

■ Don't Know/No Answer ■ No ■ Yes



Don't knows not reported in above graph

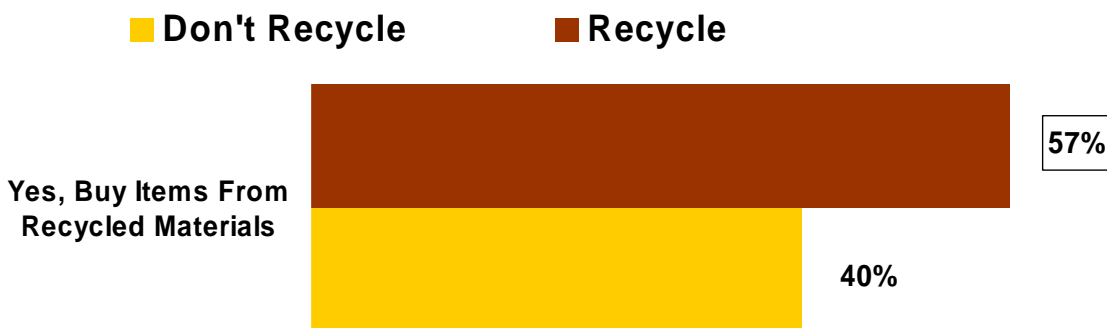
Buying Items Made From Recycled Materials – By Those That Recycle vs. Those That Don't and By Age

Respondents that currently recycle are significantly more likely to try and buy items made from recycled materials.

Respondents 60+ years of age are less likely (as compared to 40-59 year olds) to try and buy items made from recycled materials.

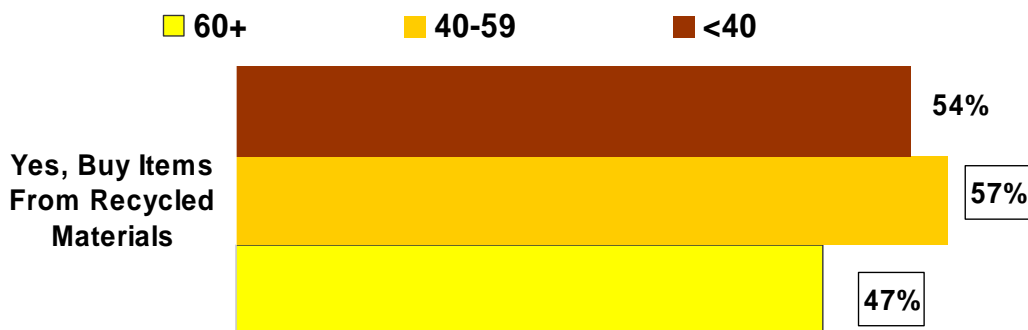
Does your household try to buy items made from recycled materials?

~ BUYING ITEMS FROM RECYCLED MATERIALS ~ BY RECYCLE / DON'T RECYCLE



Does your household try to buy items made from recycled materials?

~ BUYING ITEMS FROM RECYCLED MATERIALS ~ BY AGE



□ Significant differences comparing across those that recycle and those that do not recycle and across age groups at 95% confidence

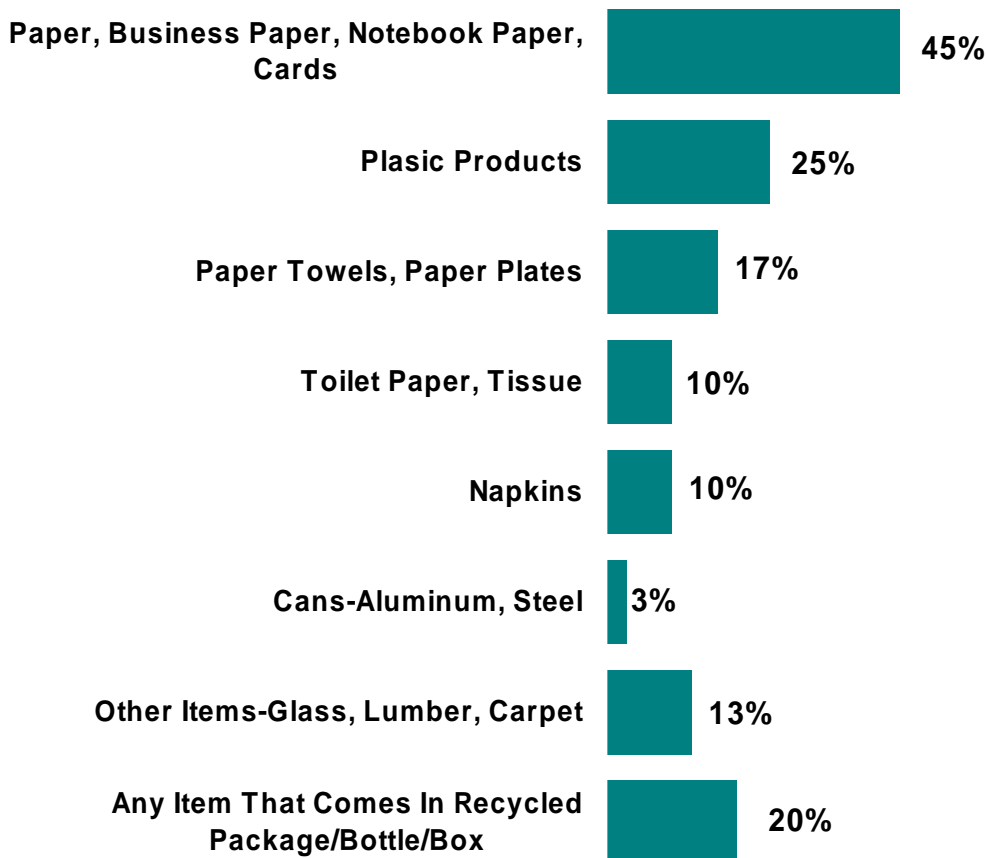
Don't knows not reported in above graph

Recycled Items Try to Buy

Among those that say they try to buy items made from recycled material, paper (business or notebook paper, cards) is the most frequently mentioned item respondents say they try to purchase.

Which items?

~ Recycled Items Try To Buy ~



Don't knows not reported in above graph

Perceptions About Recycled Items

Considering all respondents, most (77%) think that products made from recycled materials offer the same quality as products made from new items.

Respondents 60+ years old are more likely to say they don't know about the quality of products made from recycled materials.

Do you think products made from recycled materials offer the same quality as products made from new materials, better quality, or worse quality?

~ QUALITY OF RECYCLED ITEMS ~



- Don't Know/No Answer
- Recycled Products Offer Worse Quality
- Recycled Products Offer Better Quality
- Recycled Products Offer The Same Quality

Do you think products made from recycled materials offer the same quality as products made from new materials, better quality, or worse quality?

~ QUALITY OF RECYCLED ITEMS ~ BY AGE



- Don't Know
- Recycled Products Offer Worse Quality
- Recycled Products Offer Better Quality
- Recycled Products Offer The Same Quality

□ Significant differences comparing across age groups as noted at 95% confidence

~ Detailed Perceptions and Behaviors ~
With Regard To Yard Waste

Have Gardens, Grass, Trees, Or Shrubs

About nine out of ten respondents (88%) say they have gardens, grass, trees or shrubs at their house.

Does your household have any gardens, grass, trees or shrubs?

~ HAVE GARDEN, GRASS, TREES, OR SHRUBS ~

■ No - Live in an Apartment

■ Yes



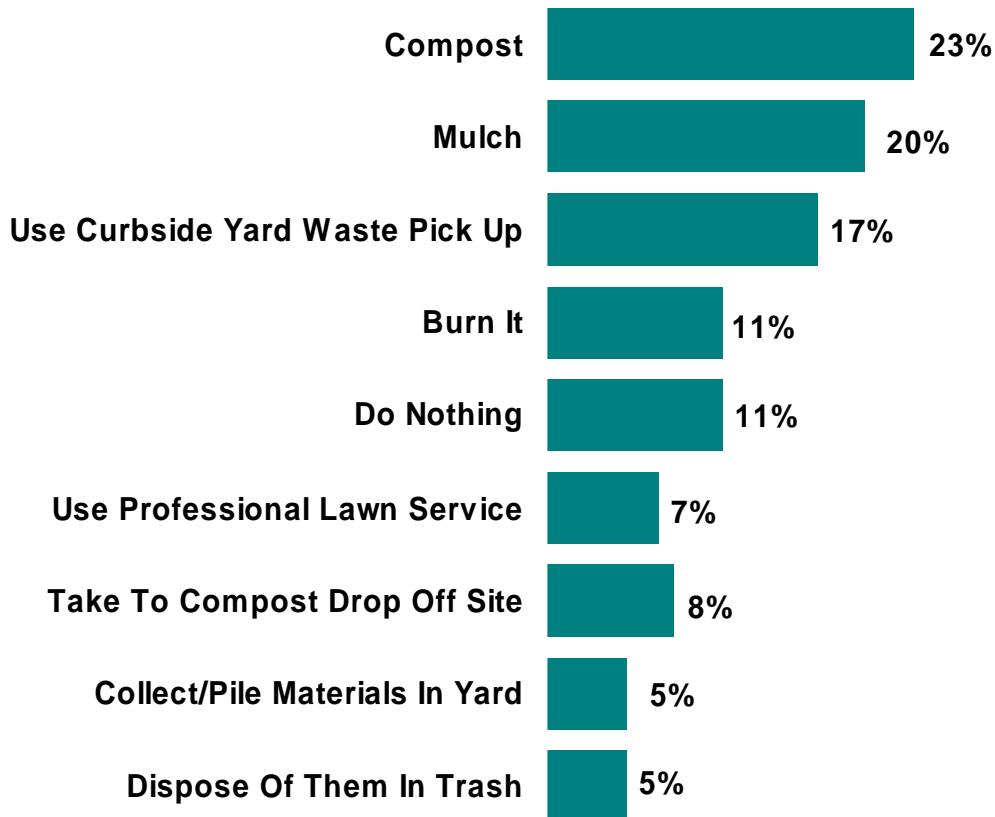
Don't knows not reported in above graph

Method of Yard Waste Disposal

Respondents that have yard waste most frequently say they compost, mulch, or use a curbside program.

What do you typically do with the yard or garden wastes?

~ METHOD OF YARD WASTE DISPOSAL ~



'Other' category and don't knows not reported in above graph

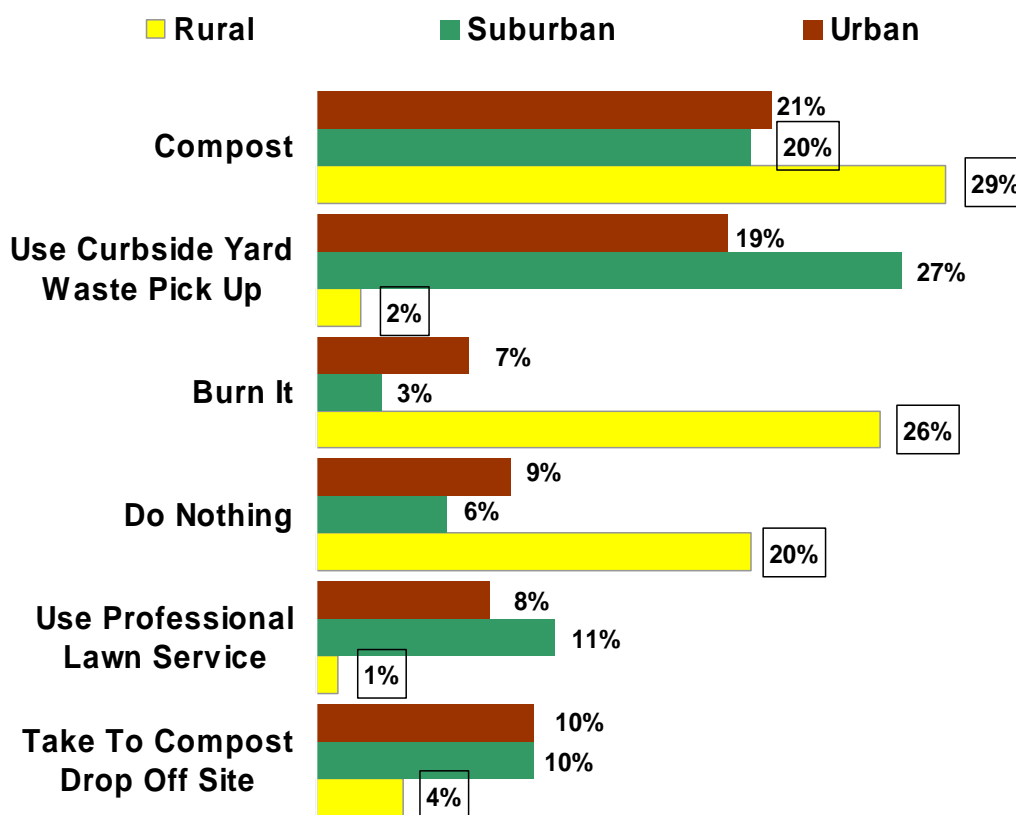
Method of Yard Waste Disposal – By Neighborhood Type

Respondents in rural neighborhoods are more likely to compost, burn their yard waste, or do nothing.

Respondents in suburban and urban neighborhoods are more likely to use a curbside pick up program, a professional lawn service, or take it to a compost drop off site.

What do you typically do with the yard or garden wastes?

~ METHOD OF YARD WASTE DISPOSAL ~ BY NEIGHBORHOOD TYPE



□ Significant difference comparing across neighborhood type as noted at 95% confidence
'Other' category and don't knows not reported in above graph

Compost Food Waste From The Kitchen

Only about one out of five respondents (19%) composts food waste.

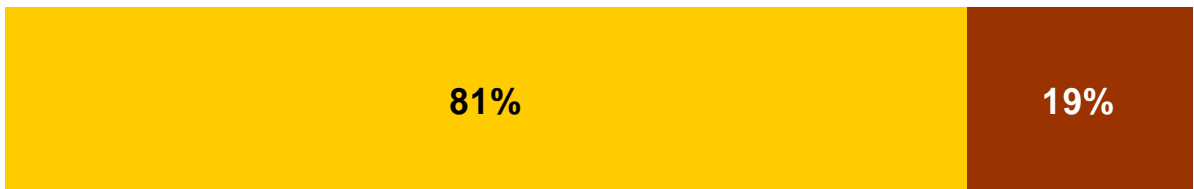
Those in rural neighborhoods are significantly more likely to compost food waste.

Those that recycle are significantly more likely to compost food waste.

Does anyone in your household compost food waste from the kitchen?

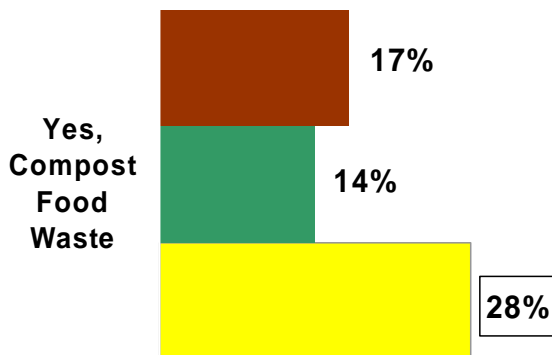
~ COMPOST FOOD WASTE ~

■ Don't Know ■ No ■ Yes, Compost Food Waste



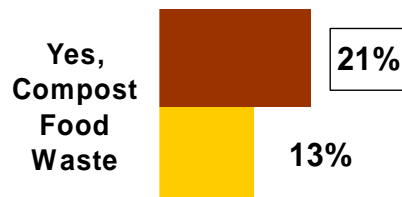
~ COMPOST FOOD WASTE ~ BY NEIGHBORHOOD TYPE

■ Rural ■ Suburban ■ Urban



~ COMPOST FOOD WASTE ~ BY RECYCLE / DON'T RECYCLE

■ Don't Recycle ■ Recycle



□ Significant difference comparing across neighborhood type and comparing across those that recycle vs. those that don't at 95% confidence

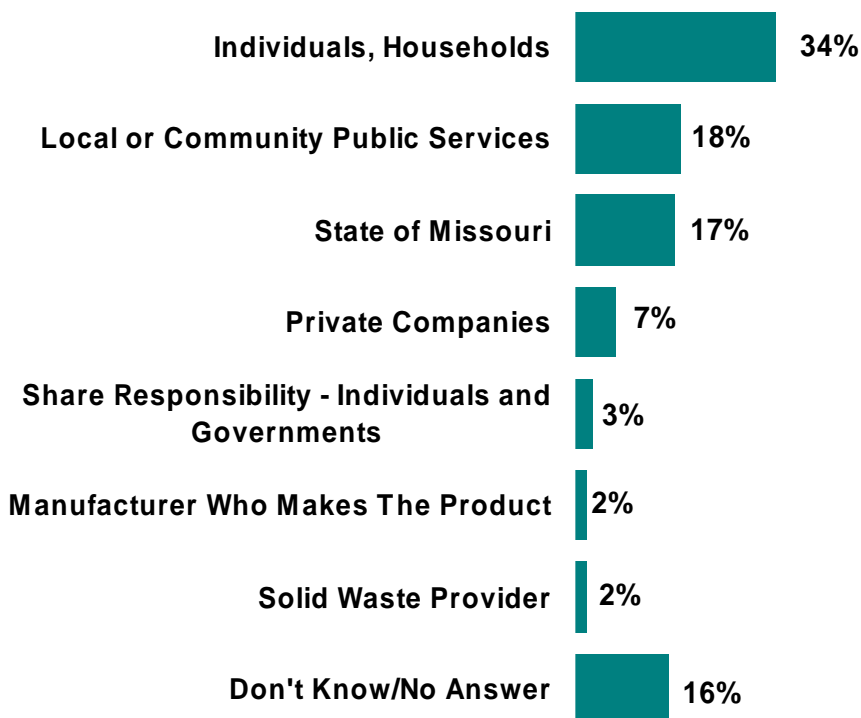
~ Perceptions With Regard To Who Has
Responsibility For Disposal & Clean Up ~

Who Should Be Responsible For Disposing Of Solid Waste

About one out of three Missouri citizens (34%) say that individuals should have the greatest responsibility for disposing of solid waste and trash.

Who do you think should have the greatest responsibility for disposing of Missouri's solid waste and trash?

~ RESPONSIBILITY FOR DISPOSING OF SOLID WASTE ~



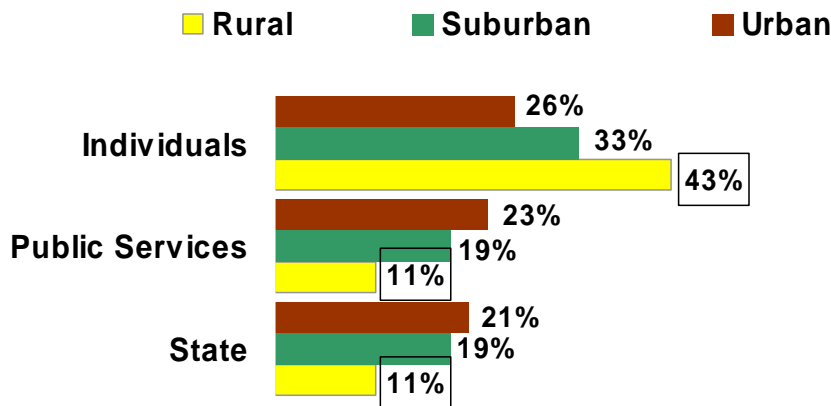
'Other' category not reported in above graph

Who Should Be Responsible For Disposing Of Solid Waste – By Neighborhood Type and Age

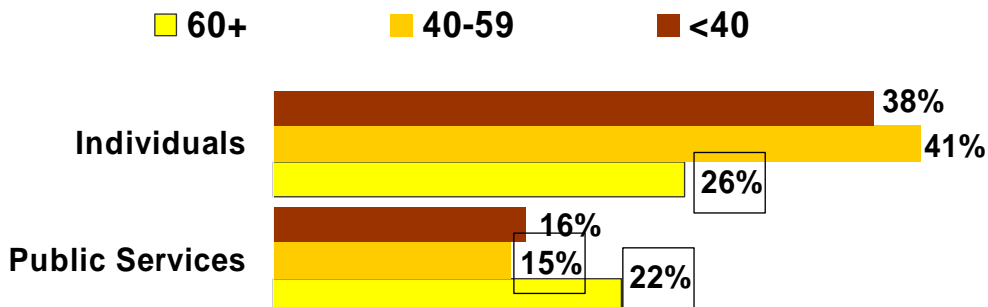
Respondents in rural areas are more likely to say individuals should be responsible. Respondents in suburban and urban areas are more likely to say public services (i.e., city) or the state should be responsible.

Respondents 60+ are more likely to say public services. Respondents under 60 years (18-59) are more likely to say individuals.

~ RESPONSIBILITY FOR DISPOSING OF SOLID WASTE ~ BY NEIGHBORHOOD TYPE



~ RESPONSIBILITY FOR DISPOSING OF SOLID WASTE ~ BY AGE



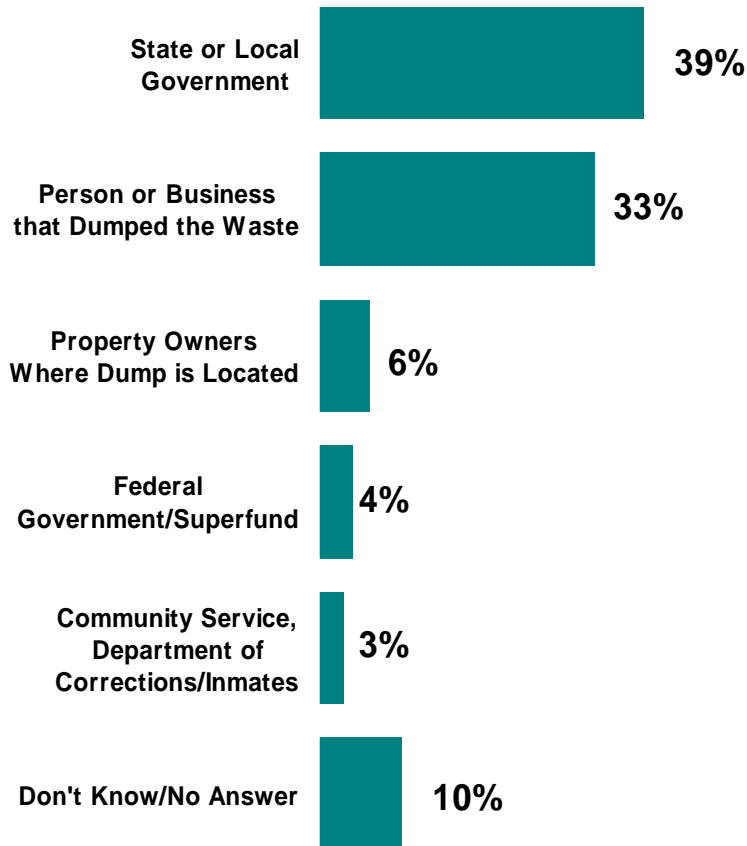
□ Significant difference comparing across neighborhood type and age groups at 95% confidence
'Other' category not reported in above graph

Responsible For Clean Up Of Illegal Dump Sites

Respondents most frequently say the state/local government or the person/business that dumped the waste is the party that should have the greatest responsibility for cleaning up Missouri's illegal dump sites.

Who do you think should have the greatest responsibility to clean up Missouri's illegal dump sites?

~ RESPONSIBILITY FOR CLEAN UP OF ILLEGAL SITES ~



'Other' category not reported in above graph

Should Manufacturers Share In The Responsibility of Disposal?

Two-thirds of all respondents agree strongly or moderately that manufacturers should share in the responsibility of recycling or disposing of the products that they sell.

Respondents that are 60+ are less likely to strongly or moderately agree that manufacturers should share in the responsibility.

Manufacturers should share in the responsibility of recycling or disposing of the products they sell.

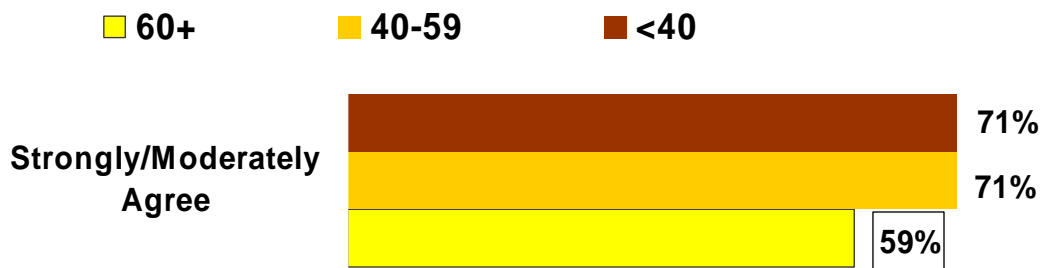
~ AGREE/DISAGREE WITH STATEMENT ~



- Strongly Disagree
- Moderately Disagree
- Neither Agree Nor Disagree
- Moderately Agree
- Strongly Agree

Manufacturers should share in the responsibility of recycling or disposing of the products they sell.

~ AGREE/DISAGREE WITH STATEMENT ~
BY AGE



□ Significant difference comparing across age groups at 95% confidence
Don't knows not reported in above graphs

Use Of Ground Waste Tires As Ingredient in Asphalt

Among all respondents 81% agree strongly or moderately that the state should support the increased use of ground waste tires as an ingredient in asphalt for paving highways.

The state should support the increased use of ground waste tires as an ingredient in asphalt for paving highways?

~ AGREE/DISAGREE WITH STATEMENT ~



- Strongly Disagree
- Moderately Disagree
- Neither Agree Nor Disagree
- Moderately Agree
- Strongly Agree

Don't knows not reported in above graphs

~ How The Public Opinion Survey Was
Conducted ~

Method

Method:

The Public Opinion Survey of Missouri citizens is based on telephone interviews (17 minutes in length on average) conducted March 15 to March 30, 2004 with 622 18 year or older adults throughout the state of Missouri.

Sample By Proportions:

A sample-by-proportions method was used. With this method there was a quota of completed interviews for each Missouri county that was based on the county to state population ratio. St. Louis County, for example, with a population of 770,506 accounted for 18% of the state's population. This corresponded to a quota of 112 completed interviews in St. Louis County.

$770,506 \text{ St. Louis County} / 4,275,118 \text{ all Missouri population} = 18\%$
 $18\% \text{ of population} / 622 \text{ total sample} = 112 \text{ quota for completed interviews in St. Louis County}$

The source for the state's population by county was the U.S. Census Bureau (via the Internet) with their citation as follows: *Table CO-EST2002-ASRO-01-29-County Population Estimates by Selected Age Categories and Sex: July 1, 2002*
Source: Population Division, U.S. Census Bureau
Release Date: September 18, 2003

The original sample of Missouri citizens' telephone numbers included 9,014 residential records (obtaining approximately 15 records for every one completed interview needed). Within each county the records were randomized.

Sampling Error:

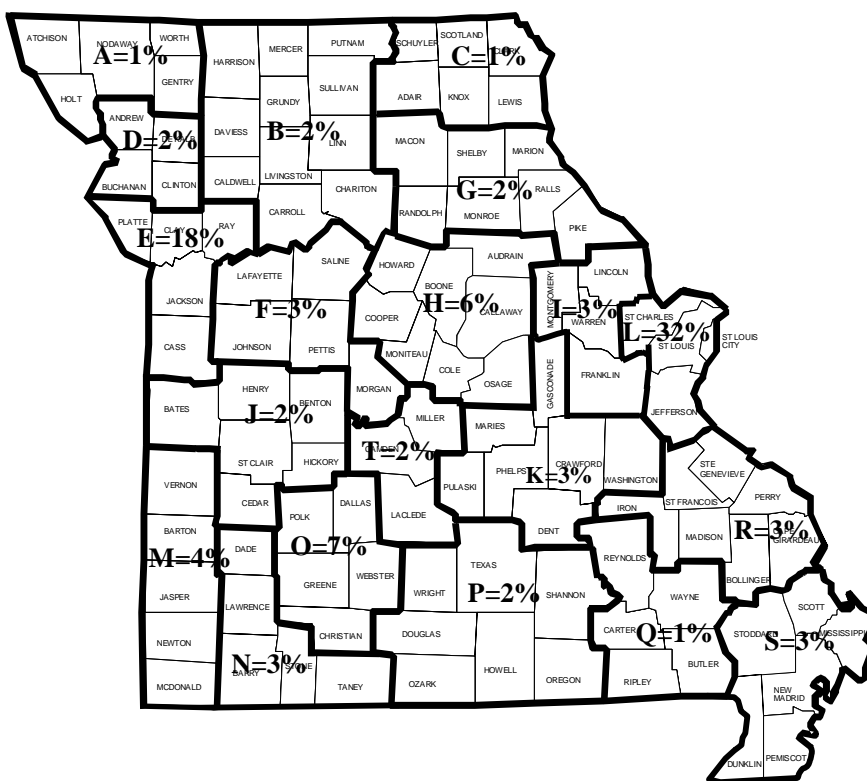
The margin of error for the sample of 622 is +/- 3.92% with a 95% confidence level. This means that in theory, in 95 cases out of 100, the poll results will differ by no more than 4 percentage points in either direction from what would have been obtained by seeking out the opinions of all Missouri adults. For smaller subgroups (i.e., neighborhood type, age groups, or recycle vs. don't recycle), the potential for sampling error is larger.

In addition to sampling error, the practical difficulties of conducting any survey of public opinion may introduce other sources of error into the survey. Variations in the question wording, for example, can potentially lead to somewhat different results.

Percent of Completed Interviews By Solid Waste Management Region

The percentage of completed interviews within each Solid Waste Management Region is shown below. The percentage of completed interviews, as explained on the preceding page, is a proportion of the population of each county to the entire state. The counties in Region L, for example, account for 32.6% of the state's population. Therefore, following the sample-by-proportions method, 32% of the 622 interviews were completed with citizens residing from Region L.

SOLID WASTE MANAGEMENT REGIONS OF MISSOURI



Solid Waste Management Regional Boundaries

Missouri Department of Natural Resources
Division of Environmental Quality
Solid Waste Management Program

~ Who Participated In The Survey ~

Who Participated In The Public Opinion Survey (1)

Gender	2004
Women	52%
Men	48%
<i>Total Sample</i>	622

Age	2004
20-29	7%
30-39	15%
40-49	20%
50-59	19%
60-69	17%
70+	19%
Unclassified	2%

Ethnicity	2004
Caucasian	87%
African-American	7%
Other (Hispanic, Asian, Other)	4%
Unclassified	2%

Education	2004
Some High School or Less	10%
High School Graduate	36%
Some College or Trade School	23%
College Graduate	22%
Post Graduate	10%

Income	2004
Under \$15,000	12%
\$15,000 but < \$25,000	10%
\$25,000 but < \$35,000	13%
\$35,000 but < \$50,000	16%
\$50,000 < \$75,000	17%
\$75,000 or more	16%
Unclassified	17%

Percentages may not add up to 100% due to rounding

Who Participated In The Public Opinion Survey (2)

Adults In Household	2004
One Adult	23%
Two Adults	61%
Three Or More Adults	16%

Type of Dwelling	2004
Single Family Home	82%
Multi-Unit Apartment or Condo	13%
Other	5%

Children In Household	2004
No Children	64%
One Child	16%
Two Children	14%
Three Or More Children	6%

Neighborhood	2004
Suburban	41%
Urban (or Downtown)	27%
Rural	30%
Unclassified	2%

Percentages may not add up to 100% due to rounding